



# **CLEAR LAKE ENHANCEMENT PROJECT** **Contract Documents**

for Improvement of the Clear Lake Sediment Trap

HUC 07120001030050



Prepared for  
City of La Porte  
Park and Recreation Department  
La Porte, Indiana

September, 1995

# **CLEAR LAKE ENHANCEMENT PROJECT CONTRACT DOCUMENTS**

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**PART 1 - INSTRUCTIONS TO BIDDERS**

**1.01 TIME AND PLACE FOR RECEIPT OF BIDS**

Scaled Bids will be received by the City of LaPorte, Park and Recreation Department ("Owner") 250 Pine Lake Avenue, LaPorte, Indiana 60137 until \_\_\_\_\_ for the Improvement of Clear Lake Sediment Trap, at which time and place all Bids will be publicly opened and read.

The Bidder may, without prejudice to himself, withdraw, modify, or correct a proposal after it has been deposited with the Owner, provided the request for such withdrawal, modification, or correction is filed with the Owner in writing or by telegram before the time set for opening bids. The original bid, as modified by such written or telegraphic communication, will be considered as the proposal submitted by the Bidder. No Bidder shall withdraw his bid after the hour set for the opening until and unless the award of the Contract is delayed for a period of more than 90 calendar days from the date of opening.

**1.02 QUALIFICATION OF BIDDERS**

The Bidder shall submit information in accordance with Section 2.3, Statement of Qualifications, to establish that he has satisfactorily performed work comparable to that required by these Contract Documents.

In addition to the information and data to be furnished with the Bid, each Bidder shall be prepared to furnish to the Owner, on request, any further information considered necessary to establish his qualifications and financial ability to carry out the Contract properly.

**1.03 ISSUING OF CONTRACT DOCUMENTS**

Two complete sets of the Contract Documents and one extra copy of the Bid Forms will be furnished to each Bidder upon payment of a fee of \$50.00 is made. The fee is refundable if the Contract Documents are returned to the City of LaPorte, Park and Recreation Department immediately after the opening of bids, and in good condition. A request for Contract Documents shall be made to:

City of LaPorte, Park and Recreation Department  
250 Pine Lake Avenue  
LaPorte, IN 46350  
Attention: Dean A. Heise, Superintendent  
Telephone: (219) 326-9600

**City of LaPorte, Park and Recreation Department  
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Bidders desiring additional sets of the Contract Documents may obtain them upon payment of \$25.00 per set. Requests shall be made to the Owner accompanied by payment to the Owner, which payment will not be refundable. Such payment may be made by cash, cashier's check or bank draft.

The Contract Documents are available for examination in the offices of the Engineer. The Engineer is \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**1.04 BIDDER'S UNDERSTANDING**

The Bidder shall visit the Site and, by careful examination, satisfy himself as to the nature and location of the Work; the conformation of the ground; the character and quality of both the surface and subsurface materials to be encountered; the location and condition of existing buildings, utilities and roads; the type of equipment and facilities needed preliminary to and during the prosecution of the Work; the general and local conditions including wage scales, labor regulations, legal matters, ordinances, rules, and regulations pertaining to the Work; and all other matters which can in any way affect the Work under the Contract. No verbal agreement or conversation with any officer, agent, or employee of the Owner or of the Engineer, either before or after the execution of the Contract, will affect or modify any of the terms or obligations herein contained.

CONTRACTOR IS HEREBY NOTIFIED THAT THE SITE VISIT IS MANDATORY. The bid will not be considered if the responsible bidder fails to visit the site of work at the time and date indicated in Section 1.10.

**1.05 INTERPRETATION OF CONTRACT DOCUMENTS BEFORE BIDS ARE RECEIVED**

If any person contemplating submitting a bid for the Work covered by the Contract is in doubt as to the meaning of any part of the Contract Documents, he should at once notify the Engineer and request clarification prior to submitting his bid. All interpretations of the Contract Documents will be made only by formal addenda issued by the Engineer under authorization of the Owner. The Owner will not be responsible for any interpretation.

**1.06 ADDENDA**

Addenda to the Contract Documents may be issued prior to the date of opening bids to clarify the Contract Documents or to reflect modifications in the design or Contract terms. Each addendum issued will be distributed to each person or organization to whom the Contract



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Documents have been issued. The recipient shall acknowledge receipt of each addendum by signing and returning the receipt form distributed with the addendum. All addenda issued become a part of the Contract Documents.

**1.07 BIDS**

Bids will be considered on the items shown in Section 2.2, Schedule of Prices, but no bid will be considered for a portion of the schedule. The Schedule of Prices has an entry for each item on which payment will be made, and no other allowance of any kind will be made unless specifically provided for in the Contract Documents. The quantities shown in the Schedule of Prices are only estimates for the purpose of comparison of Bids and determining the Contract Amount and the amount of the proposal guarantee.

Bids shall be submitted on Part 2, Bid Forms. The Bid Forms shall not be detached from the accompanying Contract Documents, and one copy of all addenda shall be attached to the bid when submitted Bids shall be enclosed in double sealed envelopes. Both inner and outer envelopes shall be marked as follows:

SEALED BID:	City of LaPorte
	Park and Recreation Department
CLEAR LAKE	250 Pine Lake Avenue
IMPROVEMENT	LaPorte, IN 46350
PROJECT	Attention: Dean A. Heise

In complying with the requirements relating to the submission of bids in duplicate, the following procedure shall be followed: One copy of the complete Contract Documents including all addenda shall be properly executed and submitted, marked "original," and will be considered the original. In addition, 1 extra complete copy of Part 2, Bid Forms, shall be properly executed and submitted. In case of a discrepancy between copies, the original will govern.

**1.08 RIGHT TO REJECT BIDS**

The Owner reserves the right to reject any or all bids, to waive any information or requirement in bids received, and to accept any bid considered advantageous to the Owner.

**1.09 PROPOSAL GUARANTEE**

To insure that a Contract will be executed, if the bid is accepted, each bid shall be accompanied by a proposal guarantee in the amount of 10% of the total amount bid, consisting of a bid bond cashier's check or bank draft. No bid will be considered unless accompanied by the proposal guarantee. If the Successful Bidder fails to enter into a Contract in accordance with these Contract Documents within 14 calendar days from the date on which he receives a con-

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tract from the Owner, the full amount of proposal guarantee will be retained by the Owner as a compensation for failure to execute the Contract inasmuch as the actual loss to the Owner is difficult to ascertain. The proposal guarantee of the Successful Bidder will be returned without interest as soon as possible after the Successful Bidder signs the Contract and furnishes the performance bond.

**1.10 ASSISTANCE IN VIEWING THE SITE OF THE WORK**

A mandatory site visit for all bidders is scheduled for \_\_\_\_\_. The Owner's representative will be present to review the project and address any questions that arise at that time.

The project site is readily accessible and on public land. The site is available to all interested bidders for viewing during daytime hours.

**1.11 EVALUATION OF BIDS**

The Contract will be awarded to the qualified Bidder presenting the lowest evaluated bid responsive to the requirements, considering all the items requested in the Schedule of Prices but excluding any Alternative Bids submitted. Alternative Bids submitted by the Bidder will be considered only if his Base Bid is determined to be the lowest evaluated bid as outlined herein. The Owner reserves the right to award the Contract to the lowest Bidder based on either of the two total bid prices submitted, whichever is more convenient to the Owner. Any bid which does not include both total bid prices will be considered nonresponsive and will not be accepted.

Prime consideration will be given to securing for the Owner the lowest total cost for the Work.

**1.12 AWARD OF CONTRACT**

Award of Contract will be made to the Successful Bidder within 90 days from the date of opening of Bids, unless all Bids are rejected.

The Successful Bidder shall execute and return the Contract within 14 days after receipt of it for signing. Upon receiving the signed Contract, along with the required certificates of insurance and performance and payment bonds, the Owner will sign and return one executed copy of the Contract and a Notice to Proceed to the Contractor within 14 days.

If the award is made to a corporation, the corporation shall furnish evidence of its corporate existence, of its right to do business in the State of Indiana, and of the authority of the officers signing the Contract.

## NOTICE TO PROCEED

To: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date: \_\_\_\_\_  
Project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You are hereby notified to commence WORK in accordance with the Agreement dated \_\_\_\_\_, 19\_\_\_\_\_, on or before \_\_\_\_\_, 19\_\_\_\_\_, and you are to complete the WORK within \_\_\_\_\_ consecutive calendar days thereafter. The date of completion of all WORK is therefore \_\_\_\_\_, 19\_\_\_\_\_.

\_\_\_\_\_  
Owner

By \_\_\_\_\_

Title \_\_\_\_\_

### ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by \_\_\_\_\_

\_\_\_\_\_,  
this the \_\_\_\_\_ day  
of \_\_\_\_\_, 19\_\_\_\_\_  
\_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

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**PART 2 - BID FORMS**

**2.1 PROPOSAL**

The City of La Porte  
Park and Recreation Department  
250 Pine Lake Avenue  
La Porte, Indiana 46350

In accordance with the Contract Documents dated \_\_\_\_\_, \_\_\_\_\_, the undersigned, as a Bidder, hereby proposes to furnish all plant, labor, equipment, and materials and will do all things necessary to perform the Improvement of Clear Lake Sediment Trap Project for the prices set forth in Section 2.2, Schedule of Prices, and agrees that if written notice of award of the Contract is received, within 90 calendar days after the date of opening of bids, he will execute the Contract as required by the Contract Documents at the time the Contract is executed. Cashier's check or bank draft as required by the Contract Documents is attached. The undersigned further agrees that, if this proposal is accepted, and if he should fail to execute the Contract within 14 calendar days from the date of which he is notified that he is the Successful Bidder to whom the Contract is awarded, the cashier's check or bank draft accompanying this proposal and the moneys payable thereon shall be paid into the funds of the Owner as agreed liquidated damages for such failure; otherwise, the cashier's check or bank draft shall be returned to the successful Bidder upon signing the Contract and furnishing the Performance Bond and Payment Bond.

The undersigned hereby acknowledges having received a full set of the Contract Documents and Addenda Nos. \_\_\_\_\_. (None unless indicated.)

\_\_\_\_\_  
Full Name of Bidder - Typewritten

\_\_\_\_\_  
Witness to Signature

By \_\_\_\_\_  
Signature

\_\_\_\_\_  
Name - Typewritten

\_\_\_\_\_  
Name and Address - Typewritten

\_\_\_\_\_  
Business Address - Typewritten

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**2.2 SCHEDULE OF PRICES**

No.	Item	Estimated Quantity	Unit	Unit Price	Total Price
1	Mobilization	All	-	Lump Sum	\$
2	Removal and Offsite Disposal of Soft Sediments	5,250	yard <sup>3</sup>	\$ /yd <sup>3</sup>	\$
3	Supply and Placement of Rockfill at Underwater Barrier	210	yard <sup>3</sup>	\$ /yd <sup>3</sup>	\$
4	Shoreline Restoration, Reseeding and Mulching	All	-	Lump Sum	\$
5	Surveying	All	-	Lump Sum	\$
6	Demobilization	All	-	Lump Sum	\$
<b>CONTRACT PRICE</b>					<b>\$</b>

\_\_\_\_\_  
COMPANY NAME OF BIDDER

\_\_\_\_\_  
SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE

**City of LaPorte, Park and Recreation Department  
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**2.3 STATEMENT OF QUALIFICATIONS**

(Reference 1.02 Qualification of Bidders)

**2.3-01 GENERAL**

The following statements as to experience and financial qualifications of the Bidder are submitted with the proposal, as a part thereof, and the Bidder warrants that all these statements are true and correct.

**2.3-02 BIDDER'S INFORMATION**

- A. Bidder's organization has been in business under its present business name for \_\_\_\_\_ years, from \_\_\_\_\_.
- B. Bidder's organization has had experience in work comparable with that required under the proposed contract:
- as a prime contractor \_\_\_\_\_ years;
- as a subcontractor \_\_\_\_\_ years.
- C. Work similar in character to that required in the proposed Contract which Bidder's organization has completed as a prime contractor:

Year	Type and Location of Work	For Whom Performed	Contract Amount

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D. Bidder refers to the following for information concerning work listed in 2.3-02 C:

Name and Title	Address	Telephone

**2.3-03 BANKING REFERENCES**

Reference is hereby made to the following bank or banks as to the financial responsibility of the Bidder:

<u>Name of Bank</u>	<u>Address</u>
_____	_____
_____	_____

**2.3-04 SURETY REFERENCES**

References is hereby made to the following surety company or companies as to the financial responsibility and general reliability of the Bidder:

Name of Surety Company	_____
Address	_____
Name of Surety Company	_____
Address	_____

**2.4 CONSTRUCTION METHOD STATEMENT**

Bidder is to insert or attach full description of his proposed method for performing the work. Bidder to insert his proposed method of removal and disposal of sediment.

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**PART 3 - PERFORMANCE AND PAYMENT BOND FORMS**

**3.1 PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS, That \_\_\_\_\_ of  
\_\_\_\_\_, a Corpora-  
tion/Partnership/Individual, herein after called "Principal", and \_\_\_\_\_  
of \_\_\_\_\_  
herein after called "Surety", are held and firmly bound unto the City of LaPorte, Park and Recreation  
Department, 250 Pine Lake Avenue, LaPorte, Indiana 46350, hereinafter called "Owner", in the penal  
sum of \_\_\_\_\_ dollars, (\$\_\_\_\_\_) in lawful money of the United  
States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and  
assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain  
contract with the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 199\_\_\_\_, a copy of  
which is hereto attached and made a part hereof for the construction of improvements to the Clear  
Lake Sediment Trap.

NOW, THEREFORE, if the Principal herein shall well, truly and faithfully perform its duties, all the  
undertakings, covenants, terms, conditions, and agreements of said contract during the original term  
thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the  
Surety and during the one year guaranty period, and if he shall satisfy all claims and demands in-  
curred under such contract, and shall fully indemnify and save harmless the Owner from all costs and  
damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner  
all outlay and expense which the Owner may incur in making good any default, then this obligation  
shall be void; otherwise it shall remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no  
change, extension of time, alteration, or addition to the terms of the contract or to the WORK to be  
performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its  
obligation on this BOND, and it does hereby waive notice of any such change, extension of time,  
alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge  
the right of any beneficiary hereunder, whose claim may be unsatisfied.



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IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_ counterparts, each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 199\_\_.

(SEAL)

Principal

By

Name and Title

ATTEST:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Surety

By

\_\_\_\_\_  
Name and Title

ATTEST:

\_\_\_\_\_  
Name and Title

**Note:** Date of BOND must not be prior to date of Contract. If Contractor is Partnership, all Partners should execute BOND.

**IMPORTANT:** Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in Indiana.

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Improvement of Clear Lake Sediment Trap**

Name and Title \_\_\_\_\_

ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Surety

By

\_\_\_\_\_

\_\_\_\_\_  
Name and Title

ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
Name and Title

**Note:** Date of BOND must not be prior to date of Contract. If Contractor is Partnership, all Partners should execute BOND.

**IMPORTANT:** Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in Indiana.

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**PART 4 - AGREEMENT**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_,  
by and between City of LaPorte, Park and Recreation Department, 250 Pine Lake Avenue, LaPorte,  
Indiana 46350, hereinafter called "Owner" and \_\_\_\_\_  
doing business as an individual/partnership/corporation hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The Contractor will commence and complete the construction of the Improvements to the Clear Lake Sediment Trap at Clear Lake, La Porte, Indiana.
2. The Contractor will furnish all of the materials, suppliers, tools, equipment, labor, and other services necessary for the construction and completion of the Project described herein.
3. The Contractor will commence the work required by the Contract Documents within \_\_\_\_\_ calendar days after the date of the Notice to Proceed and will complete the same within \_\_\_\_\_ calendar days unless the period for completion is extended otherwise by the Contract Documents.
4. The Contractor agrees to perform all of the Work described in the Contract Documents and comply with the terms therein for the sum of \$ \_\_\_\_\_, or as shown in the Schedule of Prices.
5. The term "Contract Documents" means and includes the following:
  - A. Instructions for Bidders
  - B. Bid Forms
  - C. Performance Bond
  - D. Payment Bond
  - E. Agreement
  - F. General Conditions
  - G. Supplemental General Conditions
  - H. Notice to Proceed
  - I. Change Order
  - J. Specifications
  - K. Exploration and Testing Information
  - L. Drawings prepared by Harza Engineering Company numbered 5129G-01 and 5129G-02, and dated 4-14-94
  - M. Addenda:  
No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_  
No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_  
No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_\_
6. The Owner will pay to the Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.
7. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

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IN WITNESSETH WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in duplicate each of which shall be deemed an original on the date first above written.

Owner:  
City of La Porte, Indiana

By: \_\_\_\_\_

\_\_\_\_\_  
Name and Title

(SEAL)  
ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
Name and Title

Contractor:

\_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Address

(SEAL)  
ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
Name and Title

## PART 5 - CHANGE ORDER

Agreement Date: \_\_\_\_\_

Contractor: \_\_\_\_\_

**Justification:** \_\_\_\_\_

The new Contract Price including this Change Order will be \$ \_\_\_\_\_

The date for completion of all work will be \_\_\_\_\_

Accepted by: \_\_\_\_\_

## GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports and Records
4. Drawings and Specifications
5. Shop Drawings
6. Materials, Services and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Surveys, Permits, Regulations
11. Protection of Work, Property, Persons
12. Supervision by Contractor
13. Changes in the Work
14. Changes in Contract Price
15. Time for Completion and Liquidated Damages
16. Correction of Work

17. Subsurface Conditions
18. Suspension of Work, Termination and Delay
19. Payments to Contractor
20. Acceptance of Final Payment as Release
21. Insurance
22. Contract Security
23. Assignments
24. Indemnification
25. Separate Contracts
26. Subcontracting
27. Engineer's Authority
28. Land and Rights-of-Way
29. Guaranty
30. Arbitration
31. Taxes

### 1. DEFINITIONS

1.1 Wherever used in the CONTRACT DOCUMENTS, the following terms shall have the meanings indicated which shall be applicable to both the singular and plural thereof:

1.2 ADDENDA—Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the CONTRACT DOCUMENTS, DRAWINGS and SPECIFICATIONS, by additions, deletions, clarifications or corrections.

1.3 BID—The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the WORK to be performed.

1.4 BIDDER—Any person, firm or corporation submitting a BID for the WORK.

1.5 BONDS—Bid, Performance, and Payment Bonds and other instruments of security, furnished by the CONTRACTOR and his surety in accordance with the CONTRACT DOCUMENTS.

1.6 CHANGE ORDER—A written order to the CONTRACTOR authorizing an addition, deletion or revision in the WORK within the general scope of the CONTRACT DOCUMENTS, or authorizing an adjustment in the CONTRACT PRICE or CONTRACT TIME.

1.7 CONTRACT DOCUMENTS—The contract, including Advertisement For Bids, Information For Bidders, BID, Bid Bond, Agreement, Payment Bond, Performance Bond, NOTICE OF AWARD, NOTICE TO PROCEED, CHANGE ORDER, DRAWINGS, SPECIFICATIONS, and ADDENDA.

1.8 CONTRACT PRICE—The total monies payable to the CONTRACTOR under the terms and conditions of the CONTRACT DOCUMENTS.

1.9 CONTRACT TIME—The number of calendar days stated in the CONTRACT DOCUMENTS for the completion of the WORK.

1.10 CONTRACTOR—The person, firm or corporation with whom the OWNER has executed the Agreement.

1.11 DRAWINGS—The part of the CONTRACT DOCUMENTS which show the characteristics and scope of the WORK to be performed and which have been prepared or approved by the ENGINEER.

1.12 ENGINEER—The person, firm or corporation named as such in the CONTRACT DOCUMENTS.

1.13 FIELD ORDER—A written order effecting a change in the WORK not involving an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, issued by the ENGINEER to the CONTRACTOR during construction.

1.14 NOTICE OF AWARD—The written notice of the acceptance of the BID from the OWNER to the successful BIDDER.

1.15 NOTICE TO PROCEED—Written communication issued by the OWNER to the CONTRACTOR authorizing him to proceed with the WORK and establishing the date of commencement of the WORK.

1.16 OWNER—A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the WORK is to be performed.

1.17 PROJECT—The undertaking to be performed as provided in the CONTRACT DOCUMENTS.

1.18 RESIDENT PROJECT REPRESENTATIVE—The authorized representative of the OWNER who is assigned to the PROJECT site or any part thereof.

1.19 SHOP DRAWINGS—All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a SUBCONTRACTOR, manufacturer, SUPPLIER or distributor, which illustrate how specific portions of the WORK shall be fabricated or installed.

1.20 SPECIFICATIONS—A part of the CONTRACT DOCUMENTS consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 SUBCONTRACTOR—An individual, firm or corporation having a direct contract with the CONTRACTOR or with any other SUBCONTRACTOR for the performance of a part of the WORK at the site.

1.22 SUBSTANTIAL COMPLETION—That date as certified by the ENGINEER when the construction of the PROJECT or a specified part thereof is sufficiently completed, in accordance with the CONTRACT DOCUMENTS, so that the PROJECT or specified part can be utilized for the purposes for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS—

Modifications to General Conditions required by a Federal agency for participation in the PROJECT and approved by the agency in writing prior to inclusion in the CONTRACT DOCUMENTS, or such requirements that may be imposed by applicable state laws.

**1.24 SUPPLIER**—Any person or organization who supplies materials or equipment for the WORK, including that fabricated to a special design, but who does not perform labor at the site.

**1.25 WORK**—All labor necessary to produce the construction required by the CONTRACT DOCUMENTS, and all materials and equipment incorporated or to be incorporated in the PROJECT.

**1.26 WRITTEN NOTICE**—Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the WORK.

## **2. ADDITIONAL INSTRUCTIONS AND DETAIL DRAWINGS**

**2.1** The CONTRACTOR may be furnished additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the WORK required by the CONTRACT DOCUMENTS.

**2.2** The additional drawings and instruction thus supplied will become a part of the CONTRACT DOCUMENTS. The CONTRACTOR shall carry out the WORK in accordance with the additional detail drawings and instructions.

## **3. SCHEDULES, REPORTS AND RECORDS**

**3.1** The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the CONTRACT DOCUMENTS for the WORK to be performed.

**3.2** Prior to the first partial payment estimate the CONTRACTOR shall submit construction progress schedules showing the order in which he proposes to carry on the WORK, including dates at which he will start the various parts of the WORK, estimated date of completion of each part and, as applicable:

**3.2.1** The dates at which special detail drawings will be required; and

**3.2.2** Respective dates for submission of SHOP DRAWINGS, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

**3.3** The CONTRACTOR shall also submit a schedule of payments that he anticipates he will earn during the course of the WORK.

## **4. DRAWINGS AND SPECIFICATIONS**

**4.1** The intent of the DRAWINGS and SPECIFICATIONS is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the WORK in accordance with the CONTRACT DOCUMENTS and all incidental work necessary to complete the PROJECT in an acceptable manner, ready for use, occupancy or operation by the OWNER.

**4.2** In case of conflict between the DRAWINGS and SPECIFICATIONS, the SPECIFICATIONS shall govern. Figure dimensions on DRAWINGS shall govern over scale dimensions, and detailed DRAWINGS shall govern over general DRAWINGS.

**4.3** Any discrepancies found between the DRAWINGS and SPECIFICATIONS and site conditions or any inconsistencies or ambiguities in the DRAWINGS or SPECIFICATIONS shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. WORK done by the CONTRACTOR after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR'S risk.

## **5. SHOP DRAWINGS**

**5.1** The CONTRACTOR shall provide SHOP DRAWINGS as may be necessary for the prosecution of the WORK as required by the CONTRACT DOCUMENTS. The ENGINEER shall promptly review all SHOP DRAWINGS. The ENGINEER'S approval of any SHOP DRAWING shall not release the CONTRACTOR from responsibility for deviations from the CONTRACT DOCUMENTS. The approval of any SHOP DRAWING which substantially deviates from the requirement of the CONTRACT DOCUMENTS shall be evidenced by a CHANGE ORDER.

**5.2** When submitted for the ENGINEER'S review, SHOP DRAWINGS shall bear the CONTRACTOR'S certification that he has reviewed, checked and approved the SHOP DRAWINGS and that they are in conformance with the requirements of the CONTRACT DOCUMENTS.

**5.3** Portions of the WORK requiring a SHOP DRAWING or sample submission shall not begin until the SHOP DRAWING or submission has been approved by the ENGINEER. A copy of each approved SHOP DRAWING and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

## **6. MATERIALS, SERVICES AND FACILITIES**

**6.1** It is understood that, except as otherwise specifically stated in the CONTRACT DOCUMENTS, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the WORK within the specified time.

**6.2** Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the WORK. Stored materials and equipment to be incorporated in the WORK shall be located so as to facilitate prompt inspection.

**6.3** Manufactured articles, materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

**6.4** Materials, supplies and equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

**6.5** Materials, supplies or equipment to be incorporated into the WORK shall not be purchased by the

CONTRACTOR or the SUBCONTRACTOR subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## 7. INSPECTION AND TESTING

7.1 All materials and equipment used in the construction of the PROJECT shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the CONTRACT DOCUMENTS.

7.2 The OWNER shall provide all inspection and testing services not required by the CONTRACT DOCUMENTS.

7.3 The CONTRACTOR shall provide at his expense the testing and inspection services required by the CONTRACT DOCUMENTS.

7.4 If the CONTRACT DOCUMENTS, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any WORK to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER the required certificates of inspection, testing or approval.

7.5 Inspections, tests or approvals by the engineer or others shall not relieve the CONTRACTOR from his obligations to perform the WORK in accordance with the requirements of the CONTRACT DOCUMENTS.

7.6 The ENGINEER and his representatives will at all times have access to the WORK. In addition, authorized representatives and agents of any participating Federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the WORK and also for any inspection, or testing thereof.

7.7 If any WORK is covered contrary to the written instructions of the ENGINEER it must, if requested by the ENGINEER, be uncovered for his observation and replaced at the CONTRACTOR'S expense.

7.8 If the ENGINEER considers it necessary or advisable that covered WORK be inspected or tested by others, the CONTRACTOR, at the ENGINEER'S request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the WORK in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such WORK is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such WORK is not found to be defective, the CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate CHANGE ORDER shall be issued.

## 8. SUBSTITUTIONS

8.1 Whenever a material, article or piece of equip-

ment is identified on the DRAWINGS or SPECIFICATIONS by reference to brand name or catalogue number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the CONTRACT DOCUMENTS by reference to brand name or catalogue number, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER may approve its substitution and use by the CONTRACTOR. Any cost differential shall be deductible from the CONTRACT PRICE and the CONTRACT DOCUMENTS shall be appropriately modified by CHANGE ORDER. The CONTRACTOR warrants that if substitutes are approved, no major changes in the function or general design of the PROJECT will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the CONTRACTOR without a change in the CONTRACT PRICE or CONTRACT TIME.

## 9. PATENTS

9.1 The CONTRACTOR shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss on account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified, however if the CONTRACTOR has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the ENGINEER.

## 10. SURVEYS, PERMITS, REGULATIONS

10.1 The OWNER shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the WORK together with a suitable number of bench marks adjacent to the WORK as shown in the CONTRACT DOCUMENTS. From the information provided by the OWNER, unless otherwise specified in the CONTRACT DOCUMENTS, the CONTRACTOR shall develop and make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

10.2 The CONTRACTOR shall carefully preserve bench marks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

10.3 Permits and licenses of a temporary nature necessary for the prosecution of the WORK shall be secured and paid for by the CONTRACTOR unless otherwise stated in the SUPPLEMENTAL GENERAL CONDITIONS. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the OWNER, unless otherwise specified. The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the WORK as drawn and specified. If the CONTRACTOR



observes that the CONTRACT DOCUMENTS are at variance therewith, he shall promptly notify the ENGINEER in writing, and any necessary changes shall be worked as provided in Section 13. CHANGES IN THE WORK.

#### 11. PROTECTION OF WORK, PROPERTY AND PERSONS

11.1 The CONTRACTOR will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the WORK. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the WORK and other persons who may be affected thereby, all the WORK and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

11.2 The CONTRACTOR will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction. He will erect and maintain, as required by the conditions and progress of the WORK, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the WORK may affect them. The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the CONTRACTOR, any SUBCONTRACTOR or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the CONTRACT DOCUMENTS or to the acts or omissions of the OWNER or the ENGINEER or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

11.3 In emergencies affecting the safety of persons or the WORK or property at the site or adjacent thereto, the CONTRACTOR, without special instruction or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury or loss. He will give the ENGINEER prompt WRITTEN NOTICE of any significant changes in the WORK or deviations from the CONTRACT DOCUMENTS caused thereby, and a CHANGE ORDER shall thereupon be issued covering the changes and deviations involved.

#### 12. SUPERVISION BY CONTRACTOR

12.1 The CONTRACTOR will supervise and direct the WORK. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the WORK a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the WORK.

#### 13. CHANGES IN THE WORK

13.1 The OWNER may at any time, as the need arises,

order changes within the scope of the WORK without invalidating the Agreement. If such changes increase or decrease the amount due under the CONTRACT DOCUMENTS, or in the time required for performance of the WORK, an equitable adjustment shall be authorized by CHANGE ORDER.

13.2 The ENGINEER, also, may at any time, by issuing a FIELD ORDER, make changes in the details of the WORK. The CONTRACTOR shall proceed with the performance of any changes in the WORK so ordered by the ENGINEER unless the CONTRACTOR believes that such FIELD ORDER entitles him to a change in CONTRACT PRICE or TIME, or both, in which event he shall give the ENGINEER WRITTEN NOTICE thereof within seven (7) days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in CONTRACT PRICE or TIME within thirty (30) days. The CONTRACTOR shall not execute such changes pending the receipt of an executed CHANGE ORDER or further instruction from the OWNER.

#### 14. CHANGES IN CONTRACT PRICE

14.1 The CONTRACT PRICE may be changed only by a CHANGE ORDER. The value of any WORK covered by a CHANGE ORDER or of any claim for increase or decrease in the CONTRACT PRICE shall be determined by one or more of the following methods in the order of precedence listed below:

- (a) Unit prices previously approved.
- (b) An agreed lump sum.
- (c) The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the WORK to cover the cost of general overhead and profit.

#### 15. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

15.1 The date of beginning and the time for completion of the WORK are essential conditions of the CONTRACT DOCUMENTS and the WORK embraced shall be commenced on a date specified in the NOTICE TO PROCEED.

15.2 The CONTRACTOR will proceed with the WORK at such rate of progress to insure full completion within the CONTRACT TIME. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the CONTRACT TIME for the completion of the WORK described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the WORK.

15.3 If the CONTRACTOR shall fail to complete the WORK within the CONTRACT TIME, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the BID for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the CONTRACT DOCUMENTS.

15.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the WORK is due to the following, and the CONTRACTOR has promptly given WRITTEN NOTICE of such delay to the OWNER or ENGINEER.

15.4.1 To any preference, priority or allocation

order duly issued by the OWNER.

15.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

15.4.3 To any delays of SUBCONTRACTORS occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

#### 16. CORRECTION OF WORK

16.1 The CONTRACTOR shall promptly remove from the premises all WORK rejected by the ENGINEER for failure to comply with the CONTRACT DOCUMENTS, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the WORK in accordance with the CONTRACT DOCUMENTS and without expense to the OWNER and shall bear the expense of making good all WORK of other CONTRACTORS destroyed or damaged by such removal or replacement.

16.2 All removal and replacement WORK shall be done at the CONTRACTOR'S expense. If the CONTRACTOR does not take action to remove such rejected WORK within ten (10) days after receipt of WRITTEN NOTICE, the OWNER may remove such WORK and store the materials at the expense of the CONTRACTOR.

#### 17. SUBSURFACE CONDITIONS

17.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by WRITTEN NOTICE of:

17.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the CONTRACT DOCUMENTS; or

17.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT DOCUMENTS.

17.2 The OWNER shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the WORK, an equitable adjustment shall be made and the CONTRACT DOCUMENTS shall be modified by a CHANGE ORDER. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless he has given the required WRITTEN NOTICE; provided that the OWNER may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

#### 18. SUSPENSION OF WORK, TERMINATION AND DELAY

18.1 The OWNER may suspend the WORK or any portion thereof for a period of not more than ninety days or such further time as agreed upon by the CONTRACTOR, by WRITTEN NOTICE to the CONTRACTOR and the ENGINEER which notice shall fix the date on which WORK shall be resumed. The CONTRACTOR

will resume that WORK on the date so fixed. The CONTRACTOR will be allowed an increase in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, directly attributable to any suspension.

18.2 If the CONTRACTOR is adjudged a bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to SUBCONTRACTORS or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the WORK or if he disregards the authority of the ENGINEER, or if he otherwise violates any provision of the CONTRACT DOCUMENTS, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and his surety a minimum of ten (10) days from delivery of a WRITTEN NOTICE, terminate the services of the CONTRACTOR and take possession of the PROJECT and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the WORK by whatever method he may deem expedient. In such case the CONTRACTOR shall not be entitled to receive any further payment until the WORK is finished. If the unpaid balance of the CONTRACT PRICE exceeds the direct and indirect costs of completing the PROJECT, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a CHANGE ORDER.

18.3 Where the CONTRACTOR'S services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the CONTRACT DOCUMENTS.

18.4 After ten (10) days from delivery of a WRITTEN NOTICE to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the PROJECT and terminate the Contract. In such case, the CONTRACTOR shall be paid for all WORK executed and any expense sustained plus reasonable profit.

18.5 If, through no act or fault of the CONTRACTOR, the WORK is suspended for a period of more than ninety (90) days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within thirty (30) days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within thirty (30) days of its approval and presentation, then the CONTRACTOR may, after ten (10) days from delivery of a WRITTEN NOTICE to the OWNER and the ENGINEER, terminate the CONTRACT and recover from the OWNER payment for all WORK exe-

cuted and all expenses sustained. In addition and in lieu of terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon ten (10) days written notice to the OWNER and the ENGINEER stop the WORK until he has been paid all amounts then due, in which event and upon resumption of the WORK, CHANGE ORDERS shall be issued for adjusting the CONTRACT PRICE or extending the CONTRACT TIME or both to compensate for the costs and delays attributable to the stoppage of the WORK.

18.6 If the performance of all or any portion of the WORK is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the CONTRACT DOCUMENTS, or if no time is specified, within a reasonable time, an adjustment in the CONTRACT PRICE or an extension of the CONTRACT TIME, or both, shall be made by CHANGE ORDER to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

#### 19. PAYMENTS TO CONTRACTOR

19.1 At least ten (10) days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the WORK performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the WORK but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER's title to the material and equipment and protect his interest therein, including applicable insurance. The ENGINEER will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing his reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within ten (10) days of presentation to him of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate. The OWNER shall retain ten (10) percent of the amount of each payment until final completion and acceptance of all work covered by the CONTRACT DOCUMENTS. The OWNER at any time, however, after fifty (50) percent of the WORK has been completed, if he finds that satisfactory progress is being made, shall reduce retainage to five (5%) percent on the current and remaining estimates. When the WORK is substantially complete (operational or beneficial occupancy), the retained amount may be further reduced below five (5) percent to only that amount necessary to assure completion. On completion and acceptance of a part of the WORK on which the price is stated separately in the CONTRACT DOCUMENTS, payment may be made in full, including retained percentages, less authorized deductions.

19.2 The request for payment may also include an allowance for the cost of such major materials and

equipment which are suitably stored either at or near the site.

19.3 Prior to SUBSTANTIAL COMPLETION, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the WORK. Such use shall not constitute an acceptance of such portions of the WORK.

19.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the CONTRACT DOCUMENTS. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the WORK, or the restoration of any damaged WORK except such as may be caused by agents or employees of the OWNER.

19.5 Upon completion and acceptance of the WORK, the ENGINEER shall issue a certificate attached to the final payment request that the WORK has been accepted by him under the conditions of the CONTRACT DOCUMENTS. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within thirty (30) days of completion and acceptance of the WORK.

19.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER'S agents harmless from all claims growing out of the lawful demands of SUB-CONTRACTORS, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the WORK. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR'S unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed, in accordance with the terms of the CONTRACT DOCUMENTS, but in no event shall the provisions of this sentence be construed to impose any obligations upon the OWNER to either the CONTRACTOR, his Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the CONTRACT DOCUMENTS by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

19.7 If the OWNER fails to make payment thirty (30) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

## 20. ACCEPTANCE OF FINAL PAYMENT AS RELEASE

20.1 The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this WORK and for every act and neglect of the OWNER and others relating to or arising out of this WORK. Any payment, however, final or otherwise, shall not release the CONTRACTOR or his sureties from any obligations under the CONTRACT DOCUMENTS or the Performance BOND and Payment BONDS.

## 21. INSURANCE

21.1 The CONTRACTOR shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the CONTRACTOR'S execution of the WORK, whether such execution be by himself or by any SUBCONTRACTOR or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

21.1.1 Claims under workmen's compensation, disability benefit and other similar employee benefit acts;

21.1.2 Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees;

21.1.3 Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees;

21.1.4 Claims for damages insured by usual personal injury liability coverage which are sustained (1) by any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or (2) by any other person; and

21.1.5 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

21.2 Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the WORK. These Certificates shall contain a provision that coverages afforded under the policies will not be cancelled unless at least fifteen (15) days prior WRITTEN NOTICE has been given to the OWNER.

21.3 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, liability insurance as hereinafter specified:

21.3.1 CONTRACTOR'S General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting him from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any

operations under the CONTRACT DOCUMENTS, whether such operations be by himself or by any SUBCONTRACTOR under him, or anyone directly or indirectly employed by the CONTRACTOR or by a SUBCONTRACTOR under him. Insurance shall be written with a limit of liability of not less than \$500,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than \$500,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than \$200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than \$200,000 aggregate for any such damage sustained by two or more persons in any one accident.

21.3.2 The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage insurance upon the PROJECT to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and SUBCONTRACTORS as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR'S surety from obligations under the CONTRACT DOCUMENTS to fully complete the PROJECT.

21.4 The CONTRACTOR shall procure and maintain, at his own expense, during the CONTRACT TIME, in accordance with the provisions of the laws of the state in which the work is performed, Workmen's Compensation Insurance, including occupational disease provisions, for all of his employees at the site of the PROJECT and in case any work is sublet, the CONTRACTOR shall require such SUBCONTRACTOR similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the PROJECT is not protected under Workmen's Compensation statute, the CONTRACTOR shall provide, and shall cause each SUBCONTRACTOR to provide, adequate and suitable insurance for the protection of his employees not otherwise protected.

21.5 The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for WORK to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the CONTRACT PRICE totaled in the BID. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the CONTRACT TIME, and until the WORK is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, the ENGINEER, and the OWNER.

## 22. CONTRACT SECURITY

22.1 The CONTRACTOR shall within ten (10) days after the receipt of the NOTICE OF AWARD furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the CONTRACT PRICE, conditioned upon the performance by

the CONTRACTOR of all undertakings, covenants, terms, conditions and agreements of the CONTRACT DOCUMENTS, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the WORK provided by the CONTRACT DOCUMENTS. Such BONDS shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the state in which the WORK is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these BONDS shall be borne by the CONTRACTOR. If at any time a surety on any such BOND is declared a bankrupt or loses its right to do business in the state in which the WORK is to be performed or is removed from the list of Surety Companies accepted on Federal BONDS, CONTRACTOR shall within ten (10) days after notice from the OWNER to do so, substitute an acceptable BOND (or BONDS) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such BOND shall be paid by the CONTRACTOR. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable BOND to the OWNER.

### 23. ASSIGNMENTS

23.1 Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the other party.

### 24. INDEMNIFICATION

24.1 The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the WORK, provided that any such claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and SUBCONTRACTOR, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

24.2 In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any SUBCONTRACTOR, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any SUBCONTRACTOR under workmen's compensation acts, disability benefit acts or other employee benefits acts.

24.3 The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, his agents or employees arising out of the preparation or approval of maps, DRAWINGS, opinions, reports, surveys, CHANGE ORDERS, designs or SPECIFICATIONS.

### 25. SEPARATE CONTRACTS

25.1 The OWNER reserves the right to let other con-

tracts in connection with this PROJECT. The CONTRACTOR shall afford other CONTRACTORS reasonable opportunity for the introduction and storage of their materials and the execution of their WORK, and shall properly connect and coordinate his WORK with theirs. If the proper execution or results of any part of the CONTRACTOR'S WORK depends upon the WORK of any other CONTRACTOR, the CONTRACTOR shall inspect and promptly report to the ENGINEER any defects in such WORK that render it unsuitable for such proper execution and results.

25.2 The OWNER may perform additional WORK related to the PROJECT by himself, or he may let other contracts containing provisions similar to these. The CONTRACTOR will afford the other CONTRACTORS who are parties to such Contracts (or the OWNER, if he is performing the additional WORK himself), reasonable opportunity for the introduction and storage of materials and equipment and the execution of WORK, and shall properly connect and coordinate his WORK with theirs.

25.3 If the performance of additional WORK by other CONTRACTORS or the OWNER is not noted in the CONTRACT DOCUMENTS prior to the execution of the CONTRACT, written notice thereof shall be given to the CONTRACTOR prior to starting any such additional WORK. If the CONTRACTOR believes that the performance of such additional WORK by the OWNER or others involves him in additional expense or entities him to an extension of the CONTRACT TIME, he may make a claim therefor as provided in Sections 14 and 15.

### 26. SUBCONTRACTING

26.1 The CONTRACTOR may utilize the services of specialty SUBCONTRACTORS on those parts of the WORK which, under normal contracting practices, are performed by specialty SUBCONTRACTORS.

26.2 The CONTRACTOR shall not award WORK to SUBCONTRACTOR(s), in excess of fifty (50%) percent of the CONTRACT PRICE, without prior written approval of the OWNER.

26.3 The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of his SUBCONTRACTORS, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him.

26.4 The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the WORK to bind SUBCONTRACTORS to the CONTRACTOR by the terms of the CONTRACT DOCUMENTS insofar as applicable to the WORK of SUBCONTRACTORS and to give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the CONTRACT DOCUMENTS.

26.5 Nothing contained in this CONTRACT shall create any contractual relation between any SUBCONTRACTOR and the OWNER.

### 27. ENGINEER'S AUTHORITY

27.1 The ENGINEER shall act as the OWNER'S representative during the construction period. He shall decide questions which may arise as to quality and acceptability of materials furnished and WORK performed. He shall interpret the intent of the CONTRACT DOCUMENTS in a fair and unbiased manner. The

ENGINEER will make visits to the site and determine if the WORK is proceeding in accordance with the CONTRACT DOCUMENTS.

27.2 The CONTRACTOR will be held strictly to the intent of the CONTRACT DOCUMENTS in regard to the quality of materials, workmanship and execution of the WORK. Inspections may be made at the factory or fabrication plant of the source of material supply.

27.3 The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

27.4 The ENGINEER shall promptly make decisions relative to interpretation of the CONTRACT DOCUMENTS.

#### 28. LAND AND RIGHTS-OF-WAY

28.1 Prior to issuance of NOTICE TO PROCEED, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the WORK to be performed pursuant to the CONTRACT DOCUMENTS, unless otherwise mutually agreed.

28.2 The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired.

28.3 The CONTRACTOR shall provide at his own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or for storage of materials.

#### 29. GUARANTY

29.1 The CONTRACTOR shall guarantee all materials and equipment furnished and WORK performed for a period of one (1) year from the date of SUBSTANTIAL COMPLETION. The CONTRACTOR warrants and guarantees for a period of one (1) year from the date of SUBSTANTIAL COMPLETION of the system that the completed system is free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be

necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other WORK that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance BOND shall remain in full force and effect through the guarantee period.

#### 30. ARBITRATION

30.1 All claims, disputes and other matters in question arising out of, or relating to, the CONTRACT DOCUMENTS or the breach thereof, except for claims which have been waived by the making and acceptance of final payment as provided by Section 20, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

30.2 Notice of the demand for arbitration shall be filed in writing with the other party to the CONTRACT DOCUMENTS and with the American Arbitration Association, and a copy shall be filed with the ENGINEER. Demand for arbitration shall in no event be made on any claim, dispute or other matter in question which would be barred by the applicable statute of limitations.

30.3 The CONTRACTOR will carry on the WORK and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed in writing.

#### 31. TAXES

31.1 The CONTRACTOR will pay all sales, consumer, use and other similar taxes required by the law of the place where the WORK is performed.

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**PART 7 - SUPPLEMENTAL GENERAL CONDITIONS**

**DESCRIPTION**

These Supplemental General Conditions amend or supplement the General Conditions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions which are defined in the General Conditions have the meanings assigned to them in the General Conditions.

**ARTICLE 10 - SURVEYS, PERMITS, REGULATIONS**

10.3.1. Owner has obtained all state and federal permits required for the Work.

10.3.2. Contractor will obtain local permits necessary for the Work. This includes, but may not be limited to, a Wetland District Permit, issued by the City of La Porte Zoning Administrator under Title 21 (Wetlands Protection) of the Municipal Code. Owner will provide technical information necessary for Contractor to procure permit prior to undertaking the Work.

**ARTICLE 21 - INSURANCE**

21.1.6. Claims arising out of operation of Laws or Regulations for damages because of bodily injury or death of any person or for damage to property; and,

21.1.7. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle.

21.3 - 21.5. THE CONTRACTOR IS HEREBY NOTIFIED THAT HE IS NOT TO COMMENCE WORK UNTIL HE HAS OBTAINED SATISFACTORY INSURANCE COVERAGE. During the life of the contract, the Contractor shall carry the following minimum insurance:

**City of LaPorte, Park and Recreation Department  
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Limits:

<u>Coverage</u>	<u>Per Occurrence</u>	<u>Annual Aggregate</u>
A. General public/auto liability		
B. Workers' Compensation - Employers' Liability		
C. Builder's Risk		

Prior to any work taking place, the Contractor shall furnish proof of proper insurance coverage by furnishing Owner with a certificate indicating he has insurance in force. THE OWNER AND ENGINEER SHALL BE NAMED IN THE CERTIFICATE AS CO-INSURED.

21.6. All Certificates of Insurance and the insurance policies required by this Article shall contain a provision that coverages afforded under the policies will be primary insurance coverage. If the Owner has other insurance which is applicable to the loss, it shall be on an excess basis only. The amount of the Contractor's or the insurance company's liability under this Article shall not be reduced by the existence of such other insurance.

**ARTICLE 32 - MISCELLANEOUS**

32.1. The Contractor shall comply with all laws with respect to the employment of labor and payment of local prevailing wage rates for each craft or type of worker needed to execute the contract, in accordance with Indiana Revised Statutes chapter 48, par. 39n-39s. The Contractor shall require all subcontractors to conform with said laws, and agrees to indemnify the Owner for any and all violations of said laws and any rules and regulations now or hereafter issued pursuant to said laws.

32.2. For the entire duration of the work, the Contractor shall conform to all federal and state laws on equal opportunity and fair employment, and to all rules and regulations now or hereafter issued pursuant thereto, including but not limited to the Indiana Human Rights Act (Indiana Revised Statutes chapter 68, par.1-101 et seq.), and an Act to prohibit discrimination, etc. (Indiana Revised Statutes chapter 29, par 17-24).



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32.3. The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of nondiscrimination.

32.4. All bidders shall submit a Contractor's Certification in substantially the following form along with their bid proposal form:

STATE OF INDIANA) ) SS.  
COUNTY OF \_\_\_\_\_)

Pursuant to IN. Rev. Stat., the undersigned certifies that he is a duly authorized agent of the prime contractor submitting the attached bid to the City of La Porte, Park and Recreation Department, and that said contractor is not barred from contracting with any unit of state or local government as a result of a violation of any section of the statute.

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**PART 8 - SPECIFICATIONS**

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## **DIVISION 1 - GENERAL REQUIREMENTS**

**SECTION 01010**

**SUMMARY OF WORK**

**PART 1                    GENERAL**

**1.01    WORK COVERED BY CONTRACT DOCUMENTS FOR BIDDING**

- A.    Mobilization and demobilization.
- B.    Survey and locate in field all existing and new structures.
- C.    Renovation of the existing rock fill barrier dike.
- D.    Removal of soft sediments from within the existing Clear Lake sediment trap by excavation equipment and disposal of these sediments within a disposal facility of the Contractor's choice.
- E.    Restore shoreline to clean and remove damage from construction equipment, including regrading and re-establishing native shoreline vegetation.

**1.02                    RELATED REQUIREMENTS**

- A.    The General and Special Conditions.
- B.    The Drawings.

**1.03                    WORK BY OTHERS**

The Owner may at times during this Contract perform maintenance on or repair of the remaining structures of this Project.

## **Summary of Work**

### **PART 2      PRODUCTS**

Not used.

**END OF SECTION**

**SECTION 01025**

**MEASUREMENT AND PAYMENT**

**PART 1 GENERAL**

**1.01 REQUIREMENTS INCLUDED**

- A. Measurement Provisions.
- B. Payment Provisions.
- C. Provisions for Rejected Materials.
- D. Payment Items.
- E. Non-Payment Items.

**1.02 MEASUREMENT**

- A. Measurement Standards: All work to be paid for at a contract price per unit of measurement will be measured by Engineer in accordance with United States Standard Measures. Where necessary, such computations will be based upon surveys performed by Contractor. A ton shall consist of 2,000 lb avoirdupois.
- B. Measurement by Weight: Material to be measured and paid for by weight will be weighed on accurate, approved scales, furnished by Contractor. Where not otherwise expressly stipulated, payment will be for the net weights installed.
- C. Lump-Sum Measurement:
  - 1. Lump-sum measurement will be for the entire item, unit of work, structure, or combination thereof, as listed or indicated in the Bid Schedule.

2. If Contractor requests progress payments for lump-sum items or amounts in the Bid Schedule, such progress payments will be made in accordance with the schedule of values prepared by Contractor and submitted to Engineer for review in accordance with Section 01300.

1.03 PAYMENT

- A. Payment will be full compensation for furnishing all labor, materials, tools, equipment, transportation, services, and incidentals and for performing all work necessary for completing the erection or installation of the item or work classification.
- B. Full compensation for all expense involved in conforming to the requirements for measuring materials shall be considered as included in the unit or lump-sum prices paid for the materials being measured, and no additional compensation will be made therefor.

1.04 REJECTED MATERIALS

Quantities of material wasted or disposed of in a manner not called for under the Contract; rejected loads of material, including material rejected after it has been placed by reasons of the failure of Contractor to conform to the provisions of the Contract; material not unloaded from the transporting vehicle; material placed outside the lines indicated on the Drawings or established by Engineer; material remaining on hand after completion of the Work; and materials used for correction of unauthorized excavation or overbreak will not be paid for, and such quantities will not be included in the final total quantities. No compensation will be permitted for loading, hauling, and disposing of rejected or waste material.

1.05 PAYMENT ITEMS

- A. Payment will be made at the applicable unit price or lump-sum price as detailed in the Bid Schedule for the payment items listed herein.



- B. Measurement for payment for items of work of this Contract, which are listed below, will be based on the number of units of measurement constructed and/or furnished and installed as specified and shown on the Drawings or as directed.

1.06 NON-PAYMENT ITEMS

No separate payment will be made for other required work not included in the list of payment items below, and the cost of such other work shall be included in the prices of the payment items. Such other work includes, but is not limited to, Division 1 requirements (except Mobilization and Demobilization), site clearing, and testing.

1.07 MOBILIZATION/DEMOBILIZATION

Payment for mobilization/demobilization including all costs to mobilize men, equipment and construction plant to the site, all costs to set-up the Contractor's field office, and all costs to demobilize same will be made at the Lump Sum price in the Bid Schedule. A maximum of 60% of the Lump Sum price bid for Mobilization/Demobilization will be paid upon completion of mobilization as determined by the Engineer. The remaining 40% of the Lump Sum price bid for Mobilization/Demobilization will be paid upon completion of demobilization and clean-up as determined by the Engineer. Mobilization shall not exceed 10% of the total contract price.

1.08 RENOVATION OF EXISTING RUBBLE FILL BARRIER DIKE

Measurement for payment for Renovation of the Existing Rubble Fill Barrier Dike will be made based on the number of cubic yards placed, measured in the lake, and computed from surveyed cross sections of the barrier dike within the lake prior to and after removal. Payment will be made based on the number of cubic yards of rock fill placed according to the drawing and specifications.

1.09 REMOVAL AND OFF-SITE DISPOSAL OF SOFT SEDIMENTS

Measurement for payment for Removal and Off-Site Disposal of Soft Sediments will be made based on the number of cubic yards removed, measured in the sediment trap area, and computed by the average end area method by surveyed cross section of sediment within the lake prior to and after removal. Payment will be made based on the number of cubic yards removed and at the unit price bid for Removal and Off-Site Disposal of Soft Sediments. No payment or partial payment will be made for sediment removed but not disposed as directed by the specifications.

**1.10 RESTORATION OF SHORELINE TO PRECONSTRUCTION CONDITION**

No measurement will be made for Restoration of Shoreline to Preconstruction Condition. Payment will be made based on the lump sum price bid for Restoration of Shoreline to Preconstruction Condition which price shall include all costs for grading, placing topsoil, seeding, mulching, and all other work to restore the shoreline to the condition found prior to construction.

**END OF SECTION**

**SECTION 01100**

**SPECIAL PROJECT PROCEDURES**

**PART 1 GENERAL**

**1.01 REQUIREMENTS INCLUDED**

- A. Working Hours
- B. Inspection by Representatives of LaPorte, Parks and Recreation Department and Other Agencies.
- C. Damage to Existing Property.
- D. Parking.
- E. Field Offices and Storage Facilities.
- F. Construction Schedule and Sequence.
- G. Existing Geotechnical Investigation Reports.

**1.02 WORKING HOURS**

Perform work in accordance with City of LaPorte daily working hours between 7:00 a.m. to sundown, Monday through Saturday. No work shall be performed Sunday or holidays except in emergencies and as approved by the Owner.

**1.03 INSPECTION BY REPRESENTATIVES OF THE CITY OF LA PORTE AND OTHER AGENCIES**

- A. Allow authorized representatives from the City of La Porte and other agencies access to the Site.

- B. Provide proper and safe facilities for such access and inspection.

**1.04 DAMAGE TO EXISTING PROPERTY**

- A. Protect all existing structures, trees, and property from damage and provide bracing, shoring, and other work necessary for such protection.
- B. Repair or replace to the satisfaction of the Owner, all damage to existing structures, materials, trees, and equipment because of Contractor's operations.
- C. The Owner will make a video tape of the streets around Clear Lake, and the approved truck routes for disposal operation. Damages caused by this operation shall be repaired by Contractor at no Cost to the Owner.

**1.05 PARKING**

- A. Provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with this Contract. Do not interfere with Owner's operations or construction activities.
- B. Coordinate layout of construction, staging, office, and parking areas with the Owner. The general area available shall be as determined by the Owner.

**1.06 FIELD OFFICES, STORAGE FACILITIES AND LAYDOWN AREA**

- A. Furnish such field offices at the Site as are necessary to perform, supervise and manage the work specified herein. Provide telephone service for such offices, as necessary.
- B. Furnish temporary buildings or trailers as needed for storage of equipment and materials installed under this Contract.
- C. Secure Owner's prior approval for location of field offices, storage facilities, and laydown areas.

- D. No living quarters for any employees of Contractor or his subcontractors will be allowed on Project property.
- E. Secure Owner's prior approval of areas for stockpiling materials.

**1.07 CONSTRUCTION SCHEDULE**

Contractor shall provide the Engineer a detailed schedule of contract activity within 15 days from notice to proceed. The schedule shall show the major work items and the time frame for start and completion of each item, dates of submittals for items requiring review by the Engineer and all other items as required by the Contract.

**1.08 ARCHAEOLOGICAL OBJECTS**

Contractor shall report any objects of archaeological significance to the Owner unearthed during the excavation work. The Contractor shall stop excavation in any area where archaeological objects are found until Owner approves continuing excavation.

**1.09 EXISTING INFORMATION ON SEDIMENT SAMPLING AND TESTING**

Refer to Part 9 of this document for locations of sediment samples obtained and results of physical soil and chemical tests performed on samples recovered.

**1.10 EXISTING GEOTECHNICAL INVESTIGATION**

Refer to Part 9 of this document for Logs of Exploration and results of testing accomplished in 1993 which are included as part of these contract documents.

**END OF SECTION**

**SECTION 01300**

**SUBMITTALS**

**PART 1        GENERAL**

**1.01           REQUIREMENTS INCLUDED**

- A.    Procedures.
- B.    Construction Schedule.
- C.    Record Drawings.
- D.    Progress Reports.

**1.02           PROCEDURES**

- A.    Check and certify submittals prior to delivery to the Engineer. Uncertified submittals will be returned unreviewed.
- B.    Deliver certified submittals to the Engineer. Individual submittal items shall be delivered under cover of separate, sequentially numbered transmittal letters.
- C.    Identify Project, Contractor, Subcontractor, Supplier, Owner's contract number; identify pertinent drawing feature, detail number, and Specification section number, as appropriate. Identify deviations from Contract Documents. Provide space for Contractor's and Engineer's review stamps.
- D.    Use English language and U.S. customary system of units of measurement on all submittals.
- E.    Comply with construction schedule for submittals related to Work progress. Coordinate submittal of related items.

- F. In every case where a submittal does not satisfy the specific requirements of the Contract Documents (whether in the Specifications or Drawings) include a Contractor Waiver Request in a form acceptable to the Engineer so that the proposed change will be more readily picked up when the submittal is reviewed. If approved and used in the Work, document the change and submit it to the Engineer as an "as-constructed" change.
- G. After Engineer's review of submittal, revise and resubmit within 14 days, identifying changes made since previous submittal. Revisions necessitated by Engineer's comments will not relieve the Contractor of its responsibility to complete the Work in accordance with the requirements of the construction schedule.
- H. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

**1.03 CONSTRUCTION SCHEDULE**

Prepare and submit for review a complete, detailed construction schedule and plan for executing the work within 15 days from the notice to proceed.

**1.04 PROGRESS REPORTS**

Prepare and submit a monthly progress report in a form approved by the Engineer.

**1.05 RECORD DRAWINGS**

Record Drawings. Prior to completion of the Work submit changes in Drawings as each item of Work is completed and after review by Engineer, furnish Engineer one complete set of full size permanent reproducible film copies of approved quality and type and 4 full size sets of prints of Work as finally built, including all field changes.

**1.06 TIME SCHEDULE FOR SUBMITTALS**

- A. Submit the required submittals for approval within the time indicated. Where no time is shown, indicate a time which will provide sufficient review time and satisfy the requirements of the approved construction schedule.
- B. Required Submittals.

<u>Section No.</u>	<u>Submittal Items</u>	<u>Calendar Days From Notice to Proceed</u>
01700-1.05	Warranties and Bonds	10 Days
01100-1.07	Construction Schedule	15 Days
01300-1.03		
02223-1.03	Equipment List	15 Days
02482-1.02	Soft Sediment Removal Plan	15 Days
02900-2.10	Seed Mixture Description	15 Days
02900-3.02	Documentation of Shoreline	15 Days
01300-1.04	Progress Reports	Monthly
01700-1.02	Certification of Completion	At Project Completion
01300-1.05	Record Drawings	At Project Completion
01700-1.04		

**PART 2 PRODUCTS**

Not Used.



**PART 3      EXECUTION**

Not Used.

**END OF SECTION**

**SECTION 01400**

**QUALITY CONTROL**

**PART 1 GENERAL**

**1.01 REQUIREMENTS INCLUDED**

- A. General Quality Control.
- B. Workmanship.
- C. Independent Testing.

**1.02 GENERAL QUALITY CONTROL**

Maintain quality control over suppliers, products, services, site conditions, and workmanship, to produce Work of specified quality.

**1.03 WORKMANSHIP**

- A. Comply with industry standards except when more restrictive tolerances or standards are specified herein or on the Drawings.
- B. Perform Work by persons qualified to produce workmanship of specified quality.

**1.04 INDEPENDENT TESTING**

- A. Where specified in other Sections, Contractor will obtain the testing services of an independent agency that is regularly engaged in the testing of construction materials.
- B. As required in individual Specification sections or as directed, furnish to the Engineer such samples of materials as may be necessary for testing purposes.

- C. Furnish such casual labor, equipment, and facilities as is necessary to obtain and handle samples at the Site.

**PART 2 PRODUCTS**

Not Used.

**PART 3 EXECUTION**

Not Used.

**END OF SECTION**

**SECTION 01500**

**CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS**

**PART 1        GENERAL**

**1.01           REQUIREMENTS INCLUDED**

- A.    Mobilization.
- B.    Temporary Telephone and Electric Service.
- C.    Temporary Water.
- D.    Temporary Sanitary Facilities.
- E     Barriers and Enclosures.
- F.    Construction Cleaning.
- G.    Demobilization.

**1.02           GENERAL REQUIREMENTS**

- A.    Install all construction facilities and temporary controls in accordance with applicable codes and maintain them throughout the construction period.
- B.    Maintain all existing public utilities located within the project area in operable condition at all times. Provide temporary support where required for execution of project construction.

**1.03 MOBILIZATION**

- A. Move construction materials, plant, equipment, tools, supplies, accessories, and personnel to the Site.
- B. Set-up all offices, plant, and other construction facilities.

**1.04 TEMPORARY TELEPHONE AND ELECTRICAL SERVICE**

The Contractor shall be responsible for his supplying own temporary telephone and electrical service.

**1.05 TEMPORARY WATER**

- A. Water for compaction of soil materials and other construction purposes may be withdrawn from the lake. Contractor shall provide his own pumps and related facilities.
- B. Provide potable water for drinking purposes for all Project personnel on the Site. Furnish disposable drinking cups at water locations.

**1.06 TEMPORARY SANITARY FACILITIES**

- A. Provide sanitary facilities and enclosures for all personnel on the Site.
- B. Determine number of facilities required based on total number of personnel on Site and in accordance with applicable codes.
- C. Maintain sanitary facilities in clean conditions at all times.

**1.07 TEMPORARY FIRE PROTECTION**

- A. Provide and maintain portable fire extinguishers as required to conform to applicable codes.

- B. Fire Extinguishers: Multi-purpose (ABC) dry chemical, UL rated.

**1.08 BARRIERS AND ENCLOSURES**

- A. Provide barriers and enclosures as required to prevent public entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.

**1.09 CONSTRUCTION CLEANING**

- A. Control accumulation of waste materials and rubbish; periodically dispose of off-Site.
- B. Control dust as required.
- C. Provide a road sweeper for use in cleaning City, County, and State roads and streets where contractor truck traffic creates dust, waste or sediment accumulation problems.

**1.10 DEMOBILIZATION**

- A. Dismantle all offices, plant, and other construction facilities and clean and repair damage caused by their installation or use.
- B. Remove all offices, construction materials, plant, equipment, tools, supplies, accessories, and personnel from the Site.
- C. Remove construction debris from Site and leave Site in clean and orderly condition satisfactory to Owner.
- D. Restore all utilities existing before the start of Work to an acceptable operating condition in accordance with State and local codes and as approved.

**PART 2        PRODUCTS**

Not Used.

**PART 3        EXECUTION**

Not Used.

**END OF SECTION**

**SECTION 01700**

**CONTRACT CLOSEOUT**

**PART 1      GENERAL**

**1.01      REQUIREMENTS INCLUDED**

- A.    Closeout Procedures.
- B.    Final Cleaning.
- C.    Project Record Documents.
- D.    Warranties and Bonds.
- E.    Operation and Maintenance Data.
- F.    Systems Demonstration.
- G.    Spare Parts and Maintenance Materials.

**1.02      CLOSEOUT PROCEDURES**

- A.    Complete all Work in accordance with these Drawings and Specifications.
- B.    Leave all areas free of debris, construction materials, and construction equipment.
- C.    When Contractor considers Work has reached final completion, submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for the Owner's inspection.

**1.03      FINAL CLEANING**



- A. Clean Site prior to final inspection.

**1.04 PROJECT RECORD DOCUMENTS**

- A. Maintain at the Site for the Owner one record copy of:

- 1. Drawings.
- 2. Specifications.
- 3. Addenda.
- 4. Change Orders.
- 5. Field test records.
- 6. Inspection certificates.

- B. Maintain record documents in a clean, dry, and legible condition. Do not use record documents for construction purposes.

- C. Keep record documents and samples available for inspection by the Owner.

- D. Record information on a set of opaque drawings provided by the Engineer.

- E. Record information concurrently with construction progress. Do not cover any Work until required information is recorded.

- F. Drawings: Legibly mark each item to record actual construction, including:

- 1. Record excavation lines and grades.
- 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.

3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of construction.
  4. Field changes of dimension and detail.
  5. Change Orders.
  6. Details not on original Drawings.
- G. Specifications: Legibly mark each item to record actual construction.
- H. At contract closeout, deliver record documents and samples to the Owner.
- I. Transmit with cover letter in duplicate, listing:
1. Date.
  2. Project title and number.
  3. Contractor's name, address, and telephone number.
  4. Number and title of each record document.
  5. Signature of the Contractor or authorized representative.

**1.05 WARRANTIES AND BONDS**

- A. Provide submittals as required by Section 01300. Execute Contractor's submittals and assemble documents executed by Subcontractors, Suppliers, and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
- B. Submit material prior to final Application for Payment. For equipment put into use with the Owner's permission during construction, submit within 10

days after first operation. For items of Work delayed materially beyond date of Substantial Completion, provide updated submittal within 10 days after acceptance, listing date of acceptance as start of warranty period.

**PART 2 PRODUCTS**

Not Used.

**PART 3 EXECUTION**

Not Used.

**END OF SECTION**

## **DIVISION 2 - SITEWORK**

**SECTION 02100**

**SITE PREPARATION**

**PART 1 GENERAL**

**1.01 WORK INCLUDED**

- A. Identifying existing utilities.
- B. Removing surface debris.

**1.02 REGULATORY REQUIREMENTS**

Conform to Federal, State, and local codes for disposal of debris.

**PART 2 PRODUCTS**

Not Used.

**PART 3 EXECUTION**

**3.01 PREPARATION**

- A. Identify all utilities which may interfere with progress of the work.
- B. Identify required lines, levels, contours, and datum.
- C. Protect trees, power lines, culverts, and other features to remain as directed.
- D. Protect bench marks and existing structures.
- E. Maintain and protect existing utilities remaining which pass through work area.

- F. Upon discovery of unknown utility or concealed conditions, discontinue affected Work; notify Engineer.
- G. Maintain Site access for vehicle traffic.

**END OF SECTION**

## **SECTION 02223**

### **FILLS**

#### **PART 1 GENERAL**

##### **1.01 WORK INCLUDED**

- A. Foundation preparation for all fills.
- B. Furnish, and place, fill materials for the dikes as shown on the Drawings.

##### **1.02 REFERENCES**

- A. ASTM D 422 - Method for Particle Size Analysis of Soils.

##### **1.03 SUBMITTALS**

Submit list of equipment proposed for execution of this Work along with equipment operating and performance characteristics within 15 days from notice to proceed.

#### **PART 2 PRODUCTS**

##### **2.01 MATERIALS**

- A. General: Secure materials for fill from required off-site quarry source as approved. All grain size percentages referred to herein are by weight. The particle sizes hereinafter are stated in inches, unless otherwise noted, and refer to the average of the largest and the smallest dimension of the particle, and the sieve sizes given refer to the U.S. Standard sieve sizes. All fill materials shall be free from contamination and shall be tested for contamination with results submitted for Engineer's approval. The suitability of all materials and their place in the fills well be subject to approval.

- B. **Rock Fill:** Material obtained to be used for Rock Fill shall be placed as herein specified, and be free from contamination, loam, roots, organic matter, or other unsuitable materials. Material is to be obtained from liestone rock or sand and gravel quarry source consisting of unweathered or slightly weathered rock, reasonably well graded with a maximum particle size of 18 inches. The fine material passing the US No. 100 sieve shall not exceed 5 percent. Soft disintegrated or decomposed rock shall not be used. The rock fill materials shall be approximately equidimensional, hard, dense, durable, well graded resistnat to abrasion, free of cracks and fissures, and shall be free of defects that accelerate weathering action.
- C. Topsoil shall be a loamy, organic material with a balance of silt, sand, and clay. Topsoil should not contain particles, such as stones and other foreign material larger than one (1) inch.

### **PART 3 EXECUTION**

#### **3.01 LINES AND GRADES**

- A. Place materials to the lines and grades shown on the Drawings unless otherwise directed. The lines and grades shown are after settlement during construction.
- B. Dress slopes exposed to view to neatly appearing final surfaces.
- C. Contractor may increase or decrease slopes of the fills or make such other changes in these details as may be deemed necessary by him. Contractor is responsible to reconstruct rock fill barrier dike with stable slopes.

#### **3.02 PLACING**

- A. Do not place fill upon frozen surfaces, and do not incorporate snow, ice, or frozen earth in the fills.



- B. Dump successive loads of material on the fill so as to produce the best practicable distribution of the material.
- C. Replace all approved fill material which is rendered unsuitable after being placed in the fills. Excavate and remove from the fills all material which Engineer considers objectionable and dispose of such material and refill the excavated areas as directed. When directed, remove fill material placed outside of prescribed slope lines.
- D. During the dumping and spreading of fill materials, maintain at all times a force of workers adequate to remove all roots, trash, and debris from the fill and to dispose of it in an approved manner.
- E. Ensure that temporary construction slopes within fills are stable slopes or not steeper than those shown on the Drawings. Remove approach or construction ramps on the faces of the fills before completion of the Work.
- F. Rock fill material shall be placed such that the outer slope shall contain clean, larger size rocks for protection against movement by discharge flows from the storm sewer pipe. Rock fill materials shall be placed on top of or immediately adjacent to existing rubble fill and pushed to the outer slope such that the finest material is retained at the inside and coarsest material is placed on the outer slope of the rock fill.

**END OF SECTION**

**SECTION 02482**

**SOFT SEDIMENT REMOVAL OPERATIONS**

**PART 1 GENERAL**

**1.01 WORK INCLUDED**

Remove sediments within the Clear Lake sediment trap to the excavation lines shown on Drawings.

**1.02 SUBMITTALS**

Contractor shall submit his plan for excavation and removal of soft sediments and disposal of materials. The plan shall include a complete equipment list and methods for loading and transportation of material. Contractor shall dispose materials at Contractor's off-site disposal area.

**PART 2 SOFT SEDIMENT REMOVAL**

**2.01 EQUIPMENT**

Contractor shall provide equipment sufficient to excavate soft bottom sediments in Clear Lake sediment trap to the depths and extent shown on the Drawings and within the time frame specified in the Contractor's submitted and approved construction schedule.

**PART 3        EXECUTION**

**3.01            SOFT SEDIMENT REMOVAL**

- A.    Soft lake bottom sediments shall be excavated from the Clear Lake sediment trap area designated on the Drawings, removed from the site and disposed in Contractor's off-site disposal area.
- B.    Special precautions shall be taken to insure that no areas are missed or left with high spots.
- C.    The soft sediment shall be excavated without collapsing or damaging the storm sewer pipe. The storm sewer pipe shall be replaced or repaired if damaged during soft sediment excavation and removal.

**3.02            DISPOSAL**

- A.    All excavated soft sediment material shall be transported in trucks with tarp-covered beds and deposited at the Contractor's off-site disposal area.
- B.    The excavated soft sediment material shall be deposited in the designated disposal area in such a manner as to insure that no damage shall occur to roadways, drainage systems or wetlands, pipelines, utility lines, structures, or other improvements. The Contractor shall be responsible for any material improperly placed outside of a designated disposal area, and shall remove and dispose of such material in an approved manner at his own expense.
- C.    Contractor shall clean City roads daily to remove soil, mud, and debris which may be deposited on these roads. The Contractor shall have street cleaner available at all times during the construction period, and shall also provide hoses to wash down the streets.

**END OF SECTION**

**SECTION 02900**

**LANDSCAPING**

**PART 1 GENERAL**

**1.01 WORK INCLUDED**

Restoration of shoreline and construction area to preconstruction conditions. Site restoration work shall include but not be limited to grading, placing topsoil, and establishment of grass cover.

**1.02 DEFINITIONS**

- A. Topsoil: Organic soil with silt, sand and clay constituents, free of rocks and debris.
- B. Mulching: Protective covering of straw or other material over the seeded topsoil.
- C. Grass Cover: Stand of grass resulting from seeding and maintaining until approved.

**PART 2 PRODUCTS**

**2.01 TOPSOIL**

Topsoil shall be as previously defined. The material shall not be mixed with subsoil, large stones, refuse, large roots, and foreign matter and shall be reasonably free from hard clods and undesirable material harmful to plant life.

**2.03 SEEDING MIXTURES**

Seed mixture for lake shore slope protection areas and wetland areas above the normal water level will include a range of native vegetation, including species adaptable to wet, mesic, and dry prairies. Contractor will submit a de-

scription of proposed seed mixture for this Work in accordance with Section 01300.

**PART 3 EXECUTION**

**3.01. BARRIER DIKE**

Prepare barrier dike crest to elevations shown on the drawings with smooth layer of the sand and gravel fill sufficient to cover and fill voids and to provide surface for placement of hydrosil with intact wetland vegetation.

**3.02. RESTORATION OF SHORELINE AND CONSTRUCTION AREA TO PRE-CONSTRUCTION CONDITION**

- A. Documentation: Contractor shall make a videotape documentation of the shoreline condition prior to construction or 15 days after notice to proceed, whichever is sooner. Contractor shall also add surveying data to the Drawings as necessary to document the pre-construction grades. Shoreline shall be restored to the preconstruction condition with the exception of construction changes shown on the drawings.
- B. Grading: Areas disturbed during construction shall be regraded to within 4 inches of the original lines.
- C. Topsoil: Areas to receive topsoil shall be disced and/or harrowed to a depth of no less than 2 in. and shaped to within 4 in of the original lines and grades documented before inception of construction. The area shall be free from large clods, large rocks, roots and other foreign matter before any topsoil is deposited. When the area is fully prepared the topsoil shall be deposited and spread to a depth of 8 inches.

**3.03. GRASS COVER**

- A. Seeding and mulching shoreline and wetland areas above the normal lake level will be done by manual seeding or other approved means. Fertilizer shall not be applied.

- B     **Seeding:** Rate of seeding of slope protection areas and wetland areas above the normal lake level will be as necessary to re-establish dense stand of native grass and other plants.
- C     **Mulching:** Obtain prior approval if intending to use erosion mat for mulching.

**3.04.           MAINTENANCE**

- A.     Maintain all seeded areas until a uniform dense stand of healthy grass or plants has been produced, free of bare spots and gullies formed by erosion.
- B.     Maintenance shall consist of the necessary protection of seeded and grassed areas including mulching, watering, mowing, and repair of all areas damaged by erosion and shall include regrading and reseeding if for any reason whatsoever a uniform stand of grass is not obtained.

**END OF SECTION**

## PART 9 - EXPLORATION AND TESTING INFORMATION

### 9.1 SOIL EXPLORATION AND TESTING

Subsurface soil exploration and laboratory testing of soil samples were conducted by Harza. The results of the soil exploration and testing were used to determine criteria for the restoration of the Clear Lake sediment trap. The soil exploration and testing report is available from the Engineer.

Field work, consisting of four hand auger borings, was conducted on March 18, 1993. The borehole locations are shown on Exhibit 9-1. Borehole BH-1 was located along the east shoreline of the existing sediment trap just inside the existing sediment trap area. Borehole BH-2 was located near the center of the sediment trap, twenty five feet from the sediment trap dam. Borehole BH-3A and BH-3 were located at the south end of the existing sediment trap near the stormwater inflow culvert.

Sampling was conducted and samples were visually classified in the field. Soil samples were retained for testing in Harza's soil laboratory. Laboratory testing included Atterberg limits, gradation analysis, visual classification, and Standard Proctor for selected samples.

**BH-1.** Soil boring BH-1 was drilled along the west shoreline of the lake inside the sediment barrier dike. The ground was covered with snow. Five inches of ice were chipped away. Beneath the six inches of snow and ice was a layer of black, clayey, sandy, organic soil six inches thick. Beginning at a depth of one foot was 18 inches of black organic, sandy clay soil. From 2.5 to 7 feet in depth, the soil was dark gray sandy clay. The sand content increased slightly with depth and a trace of gravel was found. Beginning at a depth of 7 feet, was a gray well rounded, poorly graded quartz sand. The boring was drilled to a depth of 8.25 feet.

**BH-2.** Soil boring BH-2 was drilled near the center of the sediment trap. There was a layer of snow and ice above the water. The muck began at a depth of about 4.5 feet. At a depth of six feet a sample of black organic muck was retrieved. The organic content of the muck was determined to be 13.8 percent. Beneath the muck was a layer of black clay and organic soil, from about 7.75 to 8.5 feet in depth beneath the surface of the ice. From 8.5 to 10.5 feet the soil was gray clayey sand. Beneath the gray clayey sand was a 6 inch layer of gray coarse sandy clay. From 11 feet to the end of boring at 12 feet was gray clayey sand.

**BH-3A.** Soil boring BH-3A was drilled along the south shore of the sediment trap. The storm sewer pipe location was not visible beneath the snow and ice. The auger reached refusal at a depth of two feet. The upper soil was organic soil with sand.

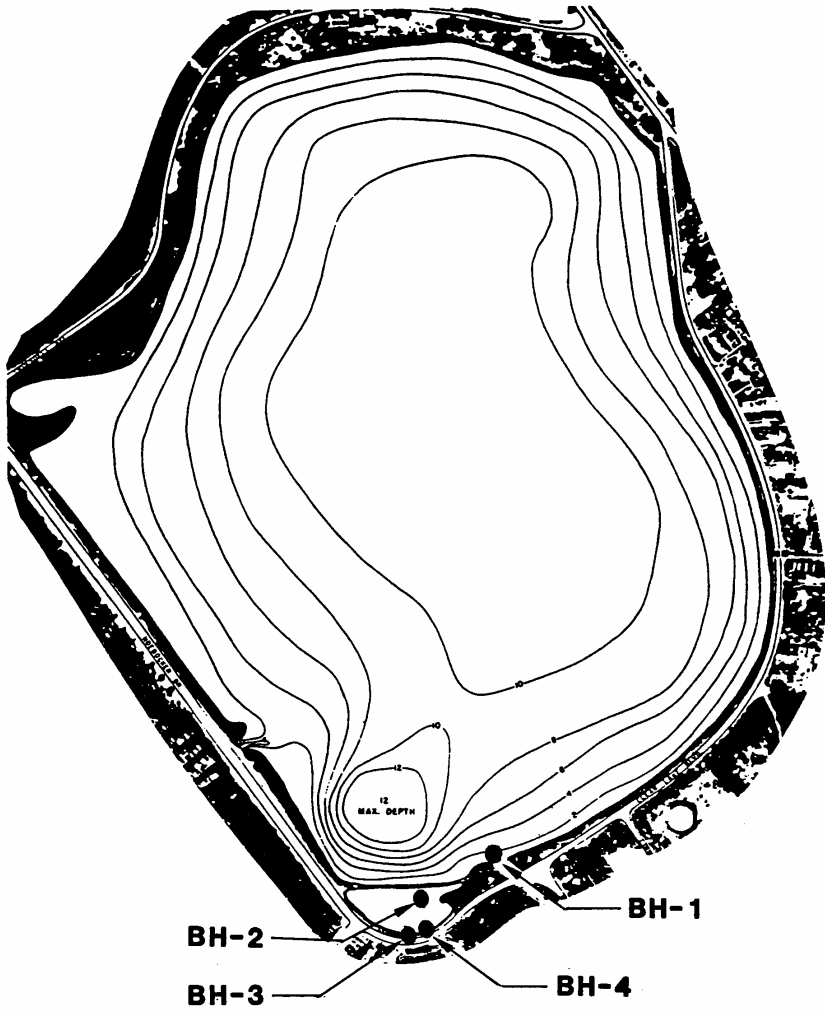
**BH-3.** Soil boring BH-3 was drilled between BH-3A and the storm sewer pipe. The borehole was drilled to a depth of seven feet. The upper 18 inches was dark sandy organic topsoil with grass. Beneath the topsoil to a depth of five feet was a layer of red-brown clayey sand. From 3.5 to 4 feet deep some coarse sand and fine gravel sized flakes of shale were found. From 5 to 6 feet in depth was a layer of black clayey sandy organic soil. Beneath the black soil, the soil was gray, well rounded, poorly graded quartz sand with some flakes of shale.

## 9.2 SEDIMENT TESTING

The Indiana Department of Environmental Management was consulted by the Engineer during design to design a sediment quality testing program. Following their approval of the program, field surveys were initiated to collect sediment for sampling. Sediment sampling was conducted on May 1, 1993. Standard coring techniques were used to collect cores inside and immediately outside the existing sediment trap. Core samples were composited to create a single sample for testing. The composite sample was submitted to National Environmental Testing, Inc. of Bartlett, Illinois for testing to evaluate possible sediment contamination and disposal options.

The sediment was tested to determine total organic carbon (TOC) and the Toxicity Characteristic Leaching Procedure (TCLP) was conducted to assess the potential hazard of the sediment to human health and the environment. The accumulated sediment in the existing sediment trap is not hazardous. No organic or inorganic contaminants exceeded the TCLP benchmarks defining a material as hazardous. No special handling, manifesting, or disposal methods are therefore required for sediment excavated during this project. The sediment analytical report is available from the Engineer.





Project Name CLEAR LAKE

Boring No. BH-1  
Location Right of Way SE 1/4  
Coordinates: N \_\_\_\_\_  
E \_\_\_\_\_  
Ground Elevation ~ 801 ft  
Total Depth 8 1/2 ft  
Date Started 3/18/93  
Date Completed 3/18/93

Depth (ft/m)	Sample Depth (ft/m)	Sample No.	Sampler Type	Blows per 6 in/15 cm	Length Driven (in/cm)	Length Recovered (in/cm)	Casing Depth (ft/m)	Unified Soil Classification	SOIL DESCRIPTION	NOTES AND FIELD TESTS
Surface Conditions: SNOW COVER over the frozen Lake. WATER LEVEL UP ONTO CLEAR LAKE BLVD SINCE THICK ICE										
0									SNOW 2 INCHES DEEP	EL. 801 ±
		1							ICE	
1		2							BLACK clayey SANDY ORGANIC SOIL	
		3							BLACK ORGANIC SANDY CLAY SOIL	
2		4								
3		5							DARK GRAY SANDY CLAY + SILT	
4		6							SAND CONTENT INC.	
5		7	BA					MV		26% MC
6		8							some gravel, some red clay clasts	
		9							CLAY CONTENT INCREASING	
7		10								
		11	BA					SM	GRAY CLEAN, WELL ROUNDED, POORLY GRADED QUARTZ SAND	18% MC
8										
9									EOB 8 1/4 ft 1255 PM	

## SOIL BORING LOG

Project Number 57296  
 Client LAFORTE PARKS  
 Contractor HARZA  
 Drilling Method HAND AUGER  
 Hole Size 3 IN  
 Driller C. R. O'DONNELL  
 Logged by C. M. BROWN

Project Name CLEAR LAKE

WATER LEVEL	<u>SURFACE</u>		
TIME			
DATE			

Boring No. BH-2  
 Location RIGHT CORNER of SEPT TRAP  
 Coordinates: N \_\_\_\_\_  
 E \_\_\_\_\_  
 Ground Elevation ~801 FT  
 Total Depth 12 FT  
 Date Started 3/19/93  
 Date Completed 3/18/93

Sample Hammer: Weight \_\_\_\_\_  
 Drop \_\_\_\_\_  
 Sampler Dimensions 3" x 10"

Depth (ft/m)	Sample Depth (ft/m)	Sample No.	Sampler Type	Blows per 6 in/15 cm	Length Driven (in/cm)	Length Recovered (in/cm)	Casing Depth (ft/m)	Unified Soil Classification	SOIL DESCRIPTION	NOTES AND FIELD TESTS
									Surface Conditions:	
									<u>SNOW 2 INCH DEEP</u>	
<u>0</u>		<u>1</u>							<u>ICE</u>	<u>El. 801 ±</u>
<u>1</u>										
<u>2</u>									<u>WATER</u>	
<u>3</u>										
<u>4</u>										
<u>5</u>		<u>2</u>							<u>VERY SOFT BLACK MUCK</u>	<u>El. 796.5 ±</u>
<u>6</u>		<u>3</u>	<u>BA</u>							
<u>7</u>										
<u>8</u>		<u>4</u>							<u>BLACK CLAY &amp; ORGANIC SOIL</u>	<u>El. 792.5 ±</u>
<u>9</u>		<u>5</u>							<u>GRAY CLAYEY SAND, w/ SILT</u>	
		<u>6</u>							<u>SOME COARSE SAND</u>	<u>66% MC</u>

Project Name CLEAR LAKE

Boring No. BH-2  
Location RIGHT CENTER  
Coordinates: N \_\_\_\_\_  
E \_\_\_\_\_  
Ground Elevation ~801  
Total Depth 12 ft  
Date Started 3/18/93  
Date Completed 3/18/93

[illegible]

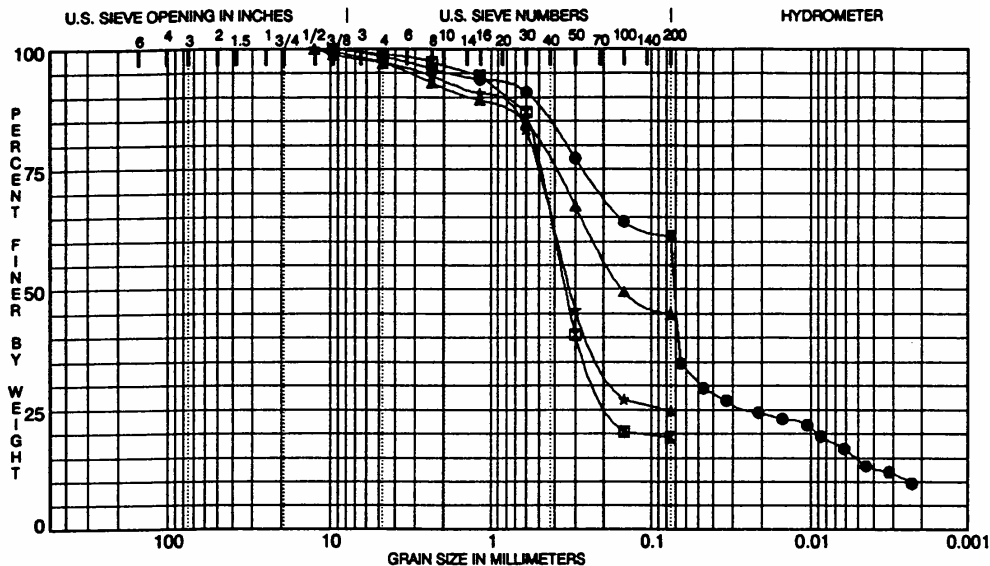
Project Name CLEAR LAKE

Boring No. BH-3  
Location NEAR INLET ALONG RA  
Coordinates: N \_\_\_\_\_  
E \_\_\_\_\_  
Ground Elevation 799  
Total Depth 7 FT  
Date Started 3/18/93  
Date Completed 3/18/93

Soil Sampling Data									Notes and Field Tests	
Depth (ft/m)	Sample Depth (ft/m)	Sample No.	Sampler Type	Blows per 6 in/15 cm	Length Driven (in/cm)	Length Recovered (in/cm)	Casing Depth (ft/m)	Unified Soil Classification	Soil Description	Notes and Field Tests
									Surface Conditions:	
									GLASS	
0										El. 799
1	1	2							TOPSOIL SANDY ORGANIC SOIL	18"
2	3								REDBROWN CLAYEY SAND	
3	4									
4	5								REDBROWN CLAYEY SAND w/ shale frags	
5	6								CLAYEY SAND	
6	7								BLACK CLAY SAND w/ ORGANICS	El. 793 ±
7	8								GRAY WELL ROUNDED, POORLY GRADED QUARTZ SAND, SOME shale fragments	
8									EOB 7ft deep	

Project Name **CLEAR LAKE**

**Project Number** 5129G



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

[illegible]

Organic Content, %

BH-2 S-3 6.0'

13.8

## **PART 10 - DRAWINGS**

**Exhibit 1 - Area Map**

**Exhibit 2 - Sediment Trap Plan and Sections**

**Exhibit 3 - Survey Plan**

**Exhibit 4 - Survey of Sediment**

**Exhibit 5 - Survey Sections**

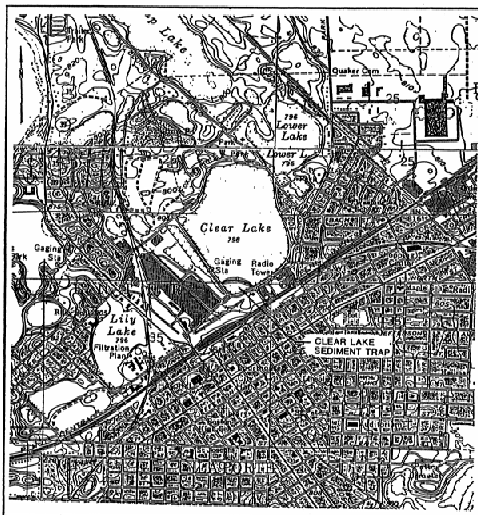
**Exhibit 6 - Survey Data Sheet 1**

**Exhibit 7 - Survey Data Sheet 2**

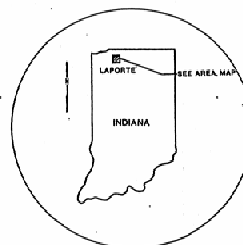
**Exhibit 8 - Lake Map**

**CITY OF LAPORTE**  
**PARK AND RECREATION DEPARTMENT**  
**LAPORTE, INDIANA**

**PLANS FOR**  
**IMPROVEMENT OF CLEAR LAKE SEDIMENT TRAP**



**AREA MAP**  
 A.T.B.



**KEY PLAN**

**HARZA ENGINEERING COMPANY**  
 CONSULTING ENGINEERS  
 CHICAGO, ILLINOIS



- 100'± crest length  
requiring transplanted  
wetland vegetation  
(it will be done by others)

- Shoreline shown on  
aerial photograph  
spring 1981

Tree (typ.)

Water  
El. 300.1  
- level line  
CLEAR LAKE BLVD.

Existing 48"  $\phi$  CMP  
storm sewer pipe

PLAN  
Scale: 1" = 20'

### EVALUATION IN PRACTICE

Scale: Var:  $F = 10$   
 min:  $F = 10$

(NORTH FILL AND D'S PROTECTION)  
D-D  
REMARKS: 1' x 5'

CITY OF LAPORE	
PARK AND RECREATION DEPARTMENT	
LAPORE, INDIANA	
IMPROVEMENT OF CLEAR LANE	SEDIMENT TRAP

### SEDIMENT TRAP PLAN AND SECTIONS

CONFIDENTIAL - EYES ONLY  
HARZA ENGINEERING COMPANY  
ATTORNEY  
CHAND, RAJIB  
DATE 5-15-94  
81200-02

DATE	BY	REVIEWED	
CHG.	CHG.	BY	
DATE			
CHG.	CHG.	BY	
DATE			
CHG.	CHG.	BY	
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10/1/68										11/1/68										12/1/68										1/1/69										2/1/69										3/1/69										4/1/69										5/1/69										6/1/69										7/1/69										8/1/69										9/1/69										10/1/69										11/1/69										12/1/69										1/1/70										2/1/70										3/1/70										4/1/70										5/1/70										6/1/70										7/1/70										8/1/70										9/1/70										10/1/70										11/1/70										12/1/70										1/1/71										2/1/71										3/1/71										4/1/71										5/1/71										6/1/71										7/1/71										8/1/71										9/1/71										10/1/71										11/1/71										12/1/71										1/1/72										2/1/72										3/1/72										4/1/72										5/1/72										6/1/72										7/1/72										8/1/72										9/1/72										10/1/72										11/1/72										12/1/72										1/1/73										2/1/73										3/1/73										4/1/73										5/1/73										6/1/73										7/1/73										8/1/73										9/1/73										10/1/73										11/1/73										12/1/73										1/1/74										2/1/74										3/1/74										4/1/74										5/1/74										6/1/74										7/1/74										8/1/74										9/1/74										10/1/74										11/1/74										12/1/74										1/1/75										2/1/75										3/1/75										4/1/75										5/1/75										6/1/75										7/1/75										8/1/75										9/1/75										10/1/75										11/1/75										12/1/75										1/1/76										2/1/76										3/1/76										4/1/76										5/1/76										6/1/76										7/1/76										8/1/76										9/1/76										10/1/76										11/1/76										12/1/76										1/1/77										2/1/77										3/1/77										4/1/77										5/1/77										6/1/77										7/1/77										8/1/77										9/1/77										10/1/77										11/1/77										12/1/77										1/1/78										2/1/78										3/1/78										4/1/78										5/1/78										6/1/78										7/1/78										8/1/78										9/1/78										10/1/78										11/1/78										12/1/78										1/1/79										2/1/79										3/1/79										4/1/79										5/1/79										6/1/79										7/1/79										8/1/79										9/1/79										10/1/79										11/1/79										12/1/79										1/1/80										2/1/80										3/1/80										4/1/80										5/1/80										6/1/80										7/1/80										8/1/80										9/1/80										10/1/80										11/1/80										12/1/80										1/1/81										2/1/81										3/1/81										4/1/81										5/1/81										6/1/81										7/1/81										8/1/81										9/1/81										10/1/81										11/1/81										12/1/81										1/1/82										2/1/82										3/1/82										4/1/82										5/1/82										6/1/82										7/1/82										8/1/82										9/1/82										10/1/82										11/1/82										12/1/82										1/1/83										2/1/83										3/1/83										4/1/83										5/1/83										6/1/83										7/1/83										8/1/83										9/1/83										10/1/83										11/1/83										12/1/83										1/1/84										2/1/84										3/1/84										4/1/84										5/1/84										6/1/84										7/1/84										8/1/84										9/1/84										10/1/84										11/1/84										12/1/84										1/1/85										2/1/85										3/1/85										4/1/85										5/1/85										6/1/85										7/1/85										8/1/85										9/1/85										10/1/85										11/1/85										12/1/85										1/1/86										2/1/86										3/1/86										4/1/86										5/1/86										6/1/86										7/1/86										8/1/86										9/1/86										10/1/86										11/1/86										12/1/86										1/1/87										2/1/87										3/1/87										4/1/87										5/1/87										6/1/87										7/1/87										8/1/87										9/1/87										10/1/87										11/1/87										12/1/87										1/1/88										2/1/88										3/1/88										4/1/88										5/1/88										6/1/88										7/1/88										8/1/88										9/1/88										10/1/88										11/1/88										12/1/88										1/1/89										2/1/89										3/1/89										4/1/89										5/1/89										6/1/89										7/1/89										8/1/89										9/1/89										10/1/89										11/1/89										12/1/89										1/1/90										2/1/90										3/1/90										4/1/90										5/1/90										6/1/90										7/1/90										8/1/90										9/1/90										10/1/90										11/1/90										12/1/90										1/1/91										2/1/91										3/1/91										4/1/91										5/1/91										6/1/91										7/1/91										8/1/91										9/1/91										10/1/91										11/1/91										12/1/91										1/1/92										2/1/92										3/1/92										4/1/92										5/1/92										6/1/92										7/1/92										8/1/92										9/1/92										10/1/92										11/1/92										12/1/92										1/1/93										2/1/93										3/1/93										4/1/93										5/1/93										6/1/93										7/1/93										8/1/93										9/1/93										10/1/93										11/1/93										12/1/93										1/1/94										2/1/94										3/1/94										4/1/94										5/1/94				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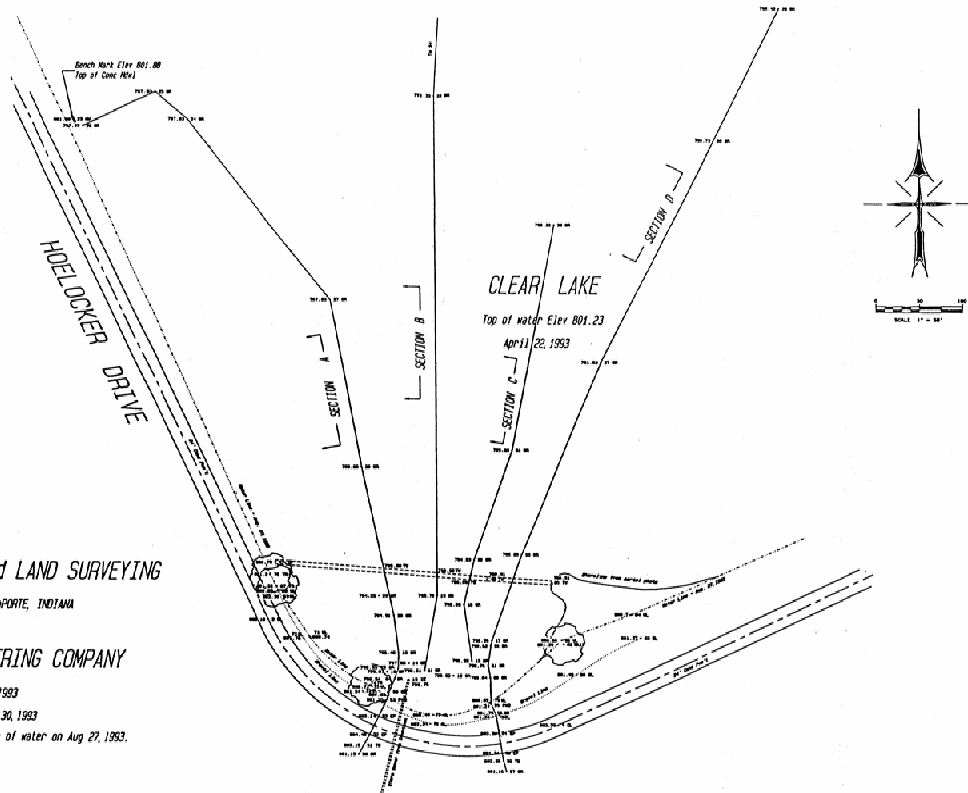
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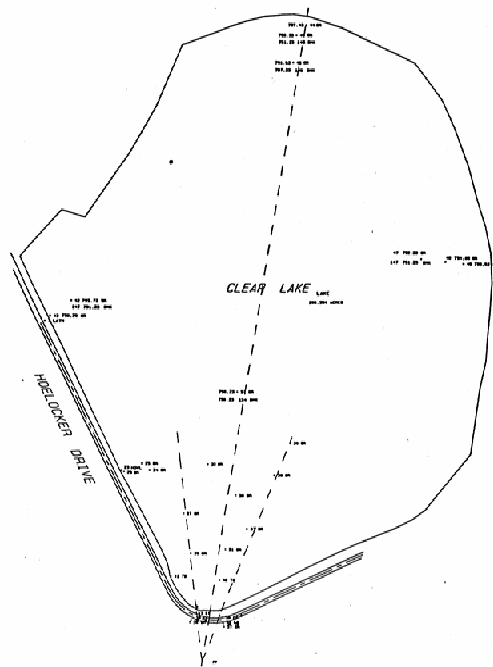
MAY 12, 1953

Revised Aug. 30, 1953

Showed gravel line and edge of water on Aug. 27, 1953.



	HAZARD ASSOCIATES, INC. LAND SURVEYING - ENGINEERS CHICAGO, ILL.		DATE May 12, 1953	SCALE 1" = 50'	SHEET 1 of 1	PROJECT Clear Lake, LaPorte, Indiana	DRAWN BY R. J. HARRIS	CHECKED BY R. J. HARRIS
	HARZA ENGINEERING COMPANY CHICAGO, ILL.		TITLE BATHYMETRIC and LAND SURVEYING		DATE May 12, 1953		SCALE 1" = 50'	



## BATHYMETRIC and LAND SURVEYING

Clear Lake, LaPorte, Indiana

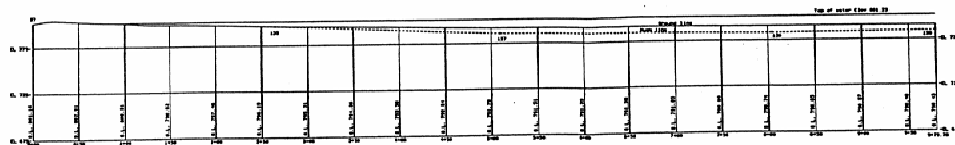
For

HARZA ENGINEERING COMPANY

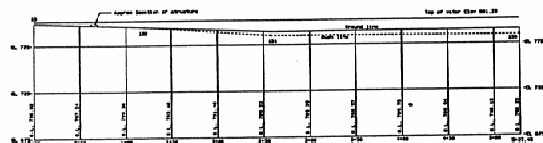
Chicago, Illinois

HARZA ENGINEERING COMPANY  
INCORPORATED IN ILLINOIS  
CHICAGO, ILLINOIS

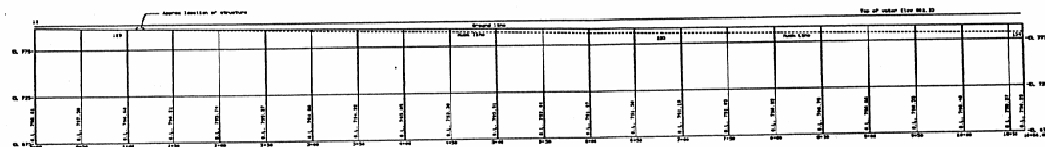
DATE	PROJECT	SCALE	BY	CHECKED	DATE
May 15, 1938	Clear Lake, LaPorte, Indiana	1" = 200'	J. E. H.	J. E. H.	May 15, 1938



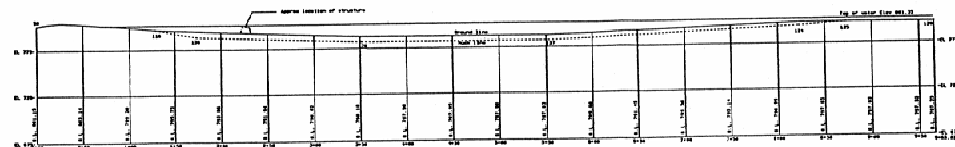
PROFILE FOR SEC D  
HORIZONTAL SCALE=1/8"=50'-0"



PROFILE FOR SEC C  
HORIZONTAL SCALE=1/8"=50'-0"



PROFILE FOR SEC B  
HORIZONTAL SCALE=1/8"=50'-0"




PROFILE FOR SEC A  
HORIZONTAL SCALE=1/8"=50'-0"

### CROSS PROFILE SECTIONS

HARZA ENGINEERING COMPANY  
Chicago, Illinois

KEIL and ASSOCIATES, INC.  
1719 State Street  
LaPorte, Indiana 46350

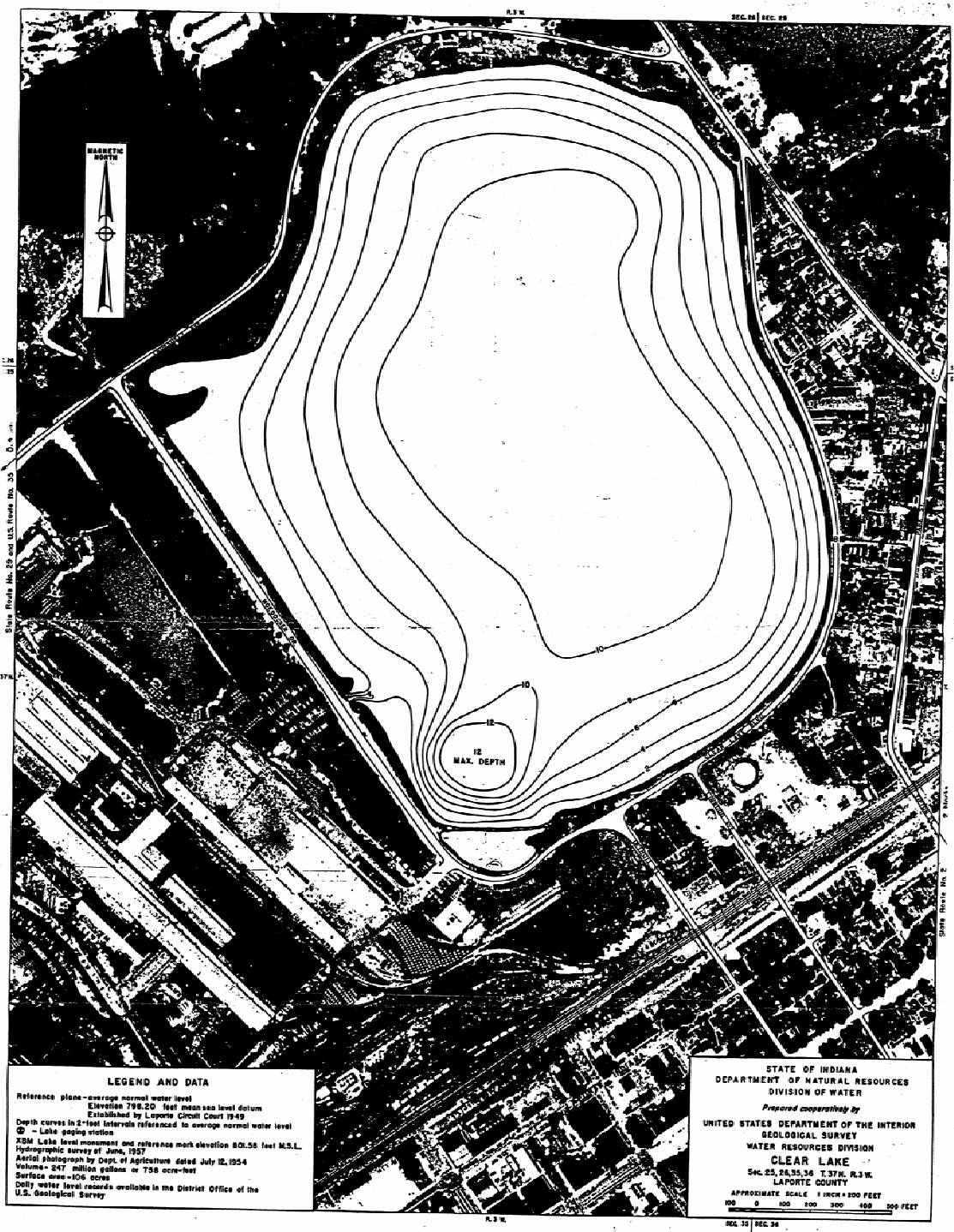
	KEIL AND ASSOCIATES, INC. LAND SURVEYORS & ENGINEERS IN THE STATE OF ILLINOIS		DATE MAY 25, 1963	DRAWN BY JAC	CHECKED BY JAC	SCALE 1" = 40'	PROJECT Clear Lake, LaPorte, Indiana	SHEET NO. 2 OF 2
	HARZA ENGINEERING COMPANY CHICAGO, ILLINOIS		PROJECT NO. 68-100-1					

\*\*\*\*\*  
 KEIL AND ASSOCIATES, INC ES-1802M  
 JOB NAME...HARZA JOB CODE...00009330  
 DATE:05-14-1993 TIME:07:09:14  
 POINTS-----COORDINATES---N/E/EL/DESCR.-----210

\*\*\*\*\*

#	NORTH	EAST	ELEVATION	DESCRIPTION
1	5000.000000	5000.000000	802.41	IP
2	5123.939980	4799.356710	803.18	CL
3	6435.151110	4171.415120	802.83	CL
4	5000.272140	5138.599350	803.59	CL
5	5025.898960	4933.946640	801.57	IP
6	5018.658720	5062.644900	801.66	IP
7	6447.223940	4191.219920	801.39	LATH
8	7997.750070	5486.871990	800.90	LATH
9	5040.869390	4916.375170	801.23	PND
10	5062.833890	4935.923200	799.07	GR
11	5064.202880	4978.396810	798.61	GR
12	5058.191310	5013.933210	799.62	GR
13	5075.848970	5035.201210	798.93	GR
14	5072.806700	4960.813030	797.98	GR
15	5053.720030	4960.414280	799.76	IE
16	5085.292930	4949.029020	796.48	GR
17	5099.620960	5058.987400	798.56	GR
18	5141.670800	5025.976570	796.69	GR
19	5151.900650	4994.256750	796.78	GR
20	5128.549580	4943.578110	794.91	GR
22	4772.504230	4962.683850	805.82	PP
23	5711.740180	4568.270680	801.88	HW
24	5712.841380	4701.365220	797.83	GR
25	5744.408620	4663.191220	797.83	GR
26	5704.140290	4578.835700	797.23	GR
27	5500.321390	4869.235610	787.83	GR
28	5303.538240	4906.385820	788.03	GR
29	5151.731940	4926.590920	794.23	GR
30	5588.883800	5133.415870	790.23	GR
31	5323.669360	5083.438780	789.23	GR
32	5194.582890	5038.077690	794.53	GR
33	5741.771460	4990.037900	791.23	GR
34	6098.550770	5140.023920	790.23	GR
35	5200.623590	5094.941460	795.83	GR
36	5093.254020	5057.601100	798.62	GR
37	5427.090750	5188.604480	791.63	GR
38	5689.494570	5322.697570	790.73	GR
39	5845.701050	5401.241840	790.43	GR
40	5171.940750	5053.562730	798.41	TB
41	5191.082650	4807.233180	800.79	TB
42	6547.014620	4319.252510	793.73	GR
43	6472.167690	4216.868320	798.39	GR
44	7917.733710	5477.143620	797.43	GR
45	7866.679980	5427.930910	793.33	GR
46	7732.010160	5411.348880	791.63	GR
47	6755.974370	6043.830680	792.53	GR
48	6743.203740	6165.016010	794.83	GR
49	6733.814770	6254.176080	798.62	GR
50	4965.946740	4903.494710	801.15	GR
51	4976.200940	4908.905620	803.15	TB
52	4988.976390	4915.984090	804.48	EP
53	5010.500330	4926.233660	803.14	EP
54	4990.463290	5067.242090	803.08	EP
55	4967.396300	5071.076050	804.34	EP
56	4957.866520	5072.907930	803.66	TB
57	4945.895670	5076.430010	801.16	GR
58	5011.656130	5063.752950	801.76	GR
59	5024.893850	5057.779730	801.27	PND
60	5056.110740	5056.982540	799.64	GR
61	5070.047360	5054.440450	798.76	GR

62	5029.658890	4935.409760	801.25	PND
63	5039.135770	4938.529690	800.83	GR
64	5054.367710	4944.505750	799.54	GR
65	5066.521050	4948.591840	798.55	GR
110	5062.833890	4935.923200	799.07	BMK
111	5064.202880	4978.396810	798.61	BMK
112	5058.191310	5013.933210	799.62	BMK
113	5075.848970	5035.201210	798.93	BMK
114	5072.806700	4960.613030	797.98	BMK
116	5085.292930	4949.029020	796.48	BMK
117	5099.620960	5058.987400	798.56	BMK
118	5141.670600	5025.976570	796.69	BMK
119	5151.900650	4994.256750	796.78	BMK
120	5128.549580	4943.578110	788.73	BMK
124	5712.841380	4701.365220	794.23	BMK
125	5744.408620	4663.191220	797.83	BMK
126	5704.140290	4578.835700	797.23	BMK
127	5500.321390	4869.235610	782.23	BMK
128	5303.538240	4906.385820	782.23	BMK
129	5151.731940	4926.590920	786.23	BMK
130	5588.883800	5133.415870	784.23	BMK
131	5323.669360	5083.438780	785.23	BMK
132	5194.582890	5038.077690	794.73	BMK
133	5741.771460	4990.037900	786.23	BMK
134	6098.550770	5140.023920	782.23	BMK
135	5200.623590	5094.941460	795.83	BMK
136	5093.254020	5057.601100	798.62	BMK
137	5427.090750	5188.604480	785.73	BMK
138	5689.494570	5322.697570	783.23	BMK
139	5845.701050	5401.241840	784.23	BMK
140	5171.940750	5053.562730	798.41	TB
141	5191.082650	4807.233180	800.79	TB
142	6547.014620	4319.252510	791.23	BMK
143	6472.167690	4216.868320	798.39	BMK
144	7917.733710	5477.143620	797.43	BMK
145	7866.679980	5427.930910	791.23	BMK
146	7732.010160	5411.348880	787.23	BMK
147	6755.974370	6043.830680	791.23	BMK
148	6743.203740	6165.016010	794.83	BMK
149	6733.814770	6254.176080	798.62	BMK



**LEGEND AND DATA**

Reference plane—average normal water level  
 Elevation 798.22 feet mean sea level datum  
 Established by Laporte Circuit Court 1949  
 Depth curves in 2-foot intervals referenced to average normal water level  
 — Lake gaging station  
 XBM Lake level monument and reference mark elevation 801.58 feet M.S.L.  
 Hypographic survey of June, 1957  
 Aerial photograph by Corps of Engineers dated July 12, 1954  
 Volume—247 million gallons or 738 acre-feet  
 Surface area—106 acres  
 Daily water level records available in the District Office of the  
 U.S. Geological Survey

STATE OF INDIANA  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF WATER  
 Prepared cooperatively by  
 UNITED STATES DEPARTMENT OF THE INTERIOR  
 GEOLOGICAL SURVEY  
 WATER RESOURCES DIVISION  
**CLEAR LAKE**  
 S.W. 25, 26, 35, 36 T. 37N. R. 3W.  
 LAPORTE COUNTY

APPROXIMATE SCALE 1 INCH = 200 FEET  
 0 100 200 300 400 500 FEET